DOCUMENT RESUME

ED 347 453 CG 024 382

AUTHOR Filson, Gerald W.
TITLE TVOntario's Substance Abuse Series: Dealing with Drugs and Chemical Solutions. A Summative Evaluation. Report No. 19-1991-1992.
INSTITUTION TV Ontario, Toronto.
PUB DATE Mar 92
NOTE 58p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Drama; *Drug Abuse; *Educational Television; Foreign Countries; Grade 7; Grade 8; Junior High Schools; Junior High School Students; *Prevention; Secondary Education; Secondary School Students; *Telecourses
IDENTIFIERS *TVOntario

ABSTRACT

A summative evaluation of the two TVOntario series, Dealing with Drugs and Chemical Solutions was carried out in the April-to-June 1991 period. Classes (N=23) were recruited for the intermediate and senior grade level study, which included more than 550 students. The intermediate series, Dealing with Drugs, designed for grade 7 and 8 students, used an entertainment magazine format to present information about drugs and drug abuse and to encourage viewers to make informed personal decisions about drug use. Almost all teachers felt the series was effective and relevant to local needs. Students also like the series, with female students enjoying it more than male students did. The soap opera "The Young and the Breathless," about a group of high school kids faced with decisions about drug use, was extremely well received, while a continuing series about self-esteem, using a detective series format, was not. The senior series, Chemical Solutions, was less well received, although a majority of students did indicate that they liked the series. Although teachers and students liked the series as a whole, and thought it relevant and effective as a stimulus to discussion, teachers and students were not certain if it was any more effective than other classroom activities in this regard. (ABL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED347453

TVONTARIO

Evaluation and Project Research | **Recherche et évaluation**

TVONTARIO'S SUBSTANCE ABUSE SERIES:

DEALING WITH DRUGS

AND

CHEMICAL SOLUTIONS

A SUMMATIVE EVALUATION

AUTHOR / AUTEUR(S) ■ Gerald W. Filson

NUMBER / NUMERO ■ 19-1991-1992

DATE ■ March 1992

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R. Volpatti

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CG024382

BEST COPY AVAILABLE

TVONTARIO'S SUBSTANCE ABUSE SERIES:

DEALING WITH DRUGS

AND

CHEMICAL SOLUTIONS

A SUMMATIVE EVALUATION

Prepared by
Gerald W. Filson
Research Consultant

with the assistance of
Wendy Figueiredo
Research Coordinator

March 1992

Report No 19-1991-1992

Director of Evaluation and Project Research: Hélène Pedneault
© Ontario Educational Communications Authority, 1992

TVONTARIO

TVO
L'CHAÎNE

Abstract No. 19-1991-1992

Summative Evaluation of *DEALING WITH DRUGS* and *CHEMICAL SOLUTIONS*

by
Gerald W. Filson, Research Consultant
with assistance from
Wendy Figueiredo, Research Coordinator

(TVOntario, Evaluation and Project Research, Report No. 19-1991-1992, 49 pages)

A summative evaluation of the two TVOntario series *Dealing with Drugs* and *Chemical Solutions* was carried out in the April to June 1991 period. Twenty-three classes were recruited for the intermediate and senior grade level study.

Dealing with Drugs

The intermediate series *Dealing with Drugs*, designed for grade 7 and 8 students, used an entertainment magazine format to present information about drugs and drug abuse and to encourage viewers to make informed personal decisions about drug use.

Almost all teachers felt the series was effective and relevant to local needs. They thought the series improved student attitudes and was suited to the grade 7 and 8 age group. The length of programs was to their liking and the format was thought to be engaging and helpful in maintaining student interest and attention. Although the teacher's guide impressed the teachers, they were not as able to exploit its many ideas effectively because of time constraints. Those teachers who had participated in the TVOntario Quality Education Project workshops were much more enthusiastic about the series than those who had not. Interestingly, such participation did not appear to make a difference to student reactions to programs, which were much the same whether the students' teacher had participated or not.

Students also liked the series, with female students enjoying it more than male students did. A majority of students gave evidence of having picked up much of the information presented on the programs. Though some students thought the magazine format moved a little too rapidly from segment to segment, most students liked the format.

The soap opera "The Young and the Breathless," about a group of highschool kids faced with decisions about drug use, was extremely well received, while a continuing series about self-esteem, using a detective series format, was not. The game and quiz show segments were thought by most students to be engaging and instructive.

From the qualitative discussions, it appeared likely that grade 9 students and teachers might also find this series helpful. Vigorous promotion of the series is recommended.

Future productions for this grade level in this style might slow the pace and reduce the number of segments per program without losing anything. It may help some students master the program content more thoroughly. The fact that there were a few continuing series in *Dealing with Drugs* neither encouraged nor discouraged use of the complete series. There were enough other discrete segments that teachers, commenting on this issue, felt they could use each program to good effect without necessarily using the complete series.

Chemical Solutions

The senior series *Chemical Solutions* was less well received, although a majority of students did indicate they liked the series. Although teachers and students liked the series as a whole, and thought it relevant and effective as a stimulus to discussion, teachers and students were not certain that it was any more effective than other classroom activities in this regard. Four programs were very well received, two of the programs were thought to be not as effective.

The relevance, style, characters, and story-line of programs 1, 2, 5, and 6 ("Michele," "The Cliffs," "Lucky You," and "The Human Race") were all generally well rated by students and teachers. "The Cliffs" was particularly well liked, relevant, and engaging. "Lucky You," a program about physical and sexual abuse in the home leading to drug abuse, was notable in its appeal to female students. "The Human Race," about performance-enhancing drugs used in competitive sports, had greatest appeal to male students.

A missing ingredient, according to a number of teachers and students, was a more graphic treatment of drug abuse consequences. Although the open-ended design was intended to stimulate discussion among students, this objective appears to have required more emphasis in teacher's guides, and/or perhaps even on the tape itself, since it was not adequately incorporated by teachers.

A major difficulty with the series is the challenge of promoting and distributing such a lengthy series to grade 11 and 12 teachers who seem to have a curriculum already heavily scheduled. From comments of students and teachers, it may be that grade 10, even grade 9 students, might benefit more from this series. Teachers and students at the senior level have, it is clear, already been exposed to a great deal of drug education material.

TVONTARIO

TVO
L'CHAÎNE

Abrégé n° 19-1991-1992

Évaluation sommative de *DEALING WITH DRUGS* et *CHEMICAL SOLUTIONS*

par
Gerald W. Filson, consultant en recherche
avec la collaboration de
Wendy Figueiredo, coordonnatrice de recherche

(Service de recherche et d'évaluation de TVOntario,
rapport n° 19-1991-1992, 49 pages)

Une évaluation sommative de deux séries de TVOntario, *Dealing with Drugs* et *Chemical Solutions*, a été menée dans des écoles en Ontario entre avril et juin 1991 avec la collaboration de 23 classes appartenant aux niveaux intermédiaire et supérieur.

Dealing with Drugs

La série destinée au niveau intermédiaire *Dealing with Drugs*, qui s'adresse plus particulièrement aux élèves des septième et huitième années, présente, sous la forme d'un magazine de divertissement, des renseignements sur la drogue et l'usage abusif de substances, et encourage les téléspectateurs à prendre en toute connaissance de cause une décision quant à l'utilisation de ces substances.

Presque tous les enseignants et les enseignantes ont estimé que la série était efficace et convenait aux besoins locaux. Selon eux, elle a exercé un effet positif sur l'attitude des élèves et était appropriée pour le groupe d'âge ciblé, les élèves des septième et huitième années. La longueur des émissions et leur agréable présentation ont aidé à maintenir l'intérêt et l'attention des élèves. Bien que le guide pédagogique les ait favorablement impressionnés, les enseignants et les enseignantes n'ont pu exploiter efficacement un nombre important des idées qu'il contient en raison du manque de temps. Ceux qui avaient participé aux ateliers de TVOntario organisés dans le cadre de l'initiative « Quality Education Project » étaient plus enthousiastes que les autres. Fait intéressant, leur participation à ces ateliers n'a semblé avoir aucun effet sur la réaction des élèves, qui se sont comportés de la même façon, que leur enseignant ou leur enseignante ait pris part ou non à ces ateliers.

La série a plu à tous les élèves, bien que davantage aux filles et à un degré moindre aux garçons. La majorité des élèves ont retenu la plupart des renseignements fournis dans ces émissions. Si certains ont trouvé que la présentation sous forme de magazine rendait un peu trop rapide l'enchaînement entre les segments, ils ont pour la plupart aimé cette structure.

La série feuilleton « The Young and the Breathless », qui portait sur un groupe d'élèves du niveau secondaire devant prendre une position face à l'utilisation des substances nocives, a été extrêmement bien accueillie, contrairement à la série sur l'estime de soi présentée sous la forme d'une émission policière. La plupart des élèves ont estimé que les segments sur le jeu et l'émission-concours étaient divertissants et instructifs.

En prenant en considération les discussions qualitatives, il semble probable que les élèves et les enseignants de la neuvième année puissent également trouver cette série utile. Nous recommandons qu'elle soit l'objet d'une promotion dynamique, compte tenu de l'accueil qu'elle a reçu jusqu'à ce jour.

En ce qui concerne les productions ultérieures de ce genre destinées au même niveau, on pourrait envisager d'en ralentir le rythme et de réduire le nombre de segments par émission sans pour autant en compromettre la valeur. Certains élèves pourraient ainsi mieux maîtriser le contenu de l'émission. Le fait qu'il existait quelques émissions « à épisodes » dans le cadre de *Dealing with Drugs* n'a eu aucun effet persuasif ou dissuasif sur l'utilisation de la série complète. Il existe suffisamment de segments distincts pour que, selon les enseignants consultés à ce sujet, chaque émission atteigne ses objectifs sans que soit obligatoirement utilisée toute la série.

Chemical Solutions

La série destinée au niveau supérieur *Chemical Solutions* a été moins bien accueillie, bien qu'elle ait plu à la plupart des élèves. Si les élèves et les enseignants l'ont appréciée dans son ensemble, estimant qu'elle était pertinente et utile pour entamer des débats, ils ont douté de sa supériorité par rapport à d'autres activités prévues pour la salle de classe qui portent sur le même sujet. Quatre émissions ont été très appréciées, deux autres ont été jugées moins efficaces.

La pertinence, le style, les personnages et le scénario des émissions nos 1, 2, 5 et 6 (« Michele », « The Cliffs », « Lucky You » et « The Human Race ») ont reçu en général une bonne note des élèves et des enseignants. « The Cliffs » a beaucoup plu, étant pertinente et attrayante. « Lucky You », une émission qui montre comment les agressions physiques et sexuelles à la maison peuvent conduire à un usage abusif de substances, a trouvé un écho particulièrement vif parmi les jeunes filles. « The Human Race », qui parlait des substances utilisées dans les sports compétitifs pour améliorer la performance des athlètes, a davantage intéressé les garçons.

Selon certains enseignants et élèves, un élément était absent : une explication plus claire, plus directe des conséquences de l'abus de la drogue. Bien que la conception ouverte de cette émission visait à stimuler les débats parmi les élèves, ce but aurait dû être souligné dans le guide pédagogique, voire sur la bande elle-même, du fait que les enseignants l'avaient mal compris.

À signaler, une sérieuse difficulté à propos de ces émissions : la promotion et la distribution d'une série particulièrement longue auprès d'enseignants de la onzième et de la douzième années dont le programme scolaire semble déjà extrêmement chargé. Si l'on en croit les commentaires des élèves et des professeurs, les élèves de la dixième année, voire de la neuvième année, pourraient tirer meilleur profit de cette série. Il est clair que les enseignants et les élèves du niveau supérieur ont déjà à leur disposition un grand nombre de documents éducatifs sur les substances nocives.

TABLE OF CONTENTS

page

1. **INTRODUCTION** 1

2. **DESCRIPTION OF EVALUATION** 2
   - 2.1. PURPOSE 3
   - 2.2. METHOD 4
   - 2.3. SAMPLE 5

3. **QUANTITATIVE EVALUATION OF THE SERIES *DEALING WITH DRUGS*** 8
   - 3.1. DESCRIPTION OF THE STUDENTS AND TEACHERS 8
   - 3.2. OVERALL EFFECTIVENESS OF THE SERIES 10
   - 3.3. REACTIONS TO PROGRAM APPROACH AND FORMAT 13
   - 3.4. RESPONSE TO SPECIFIC PROGRAM SEGMENTS 17
   - 3.5. MEDIATED VIEWING AND OTHER ISSUES 20

4. **QUALITATIVE EVALUATION OF THE SERIES *DEALING WITH DRUGS*** 21
   - 4.1. DESCRIPTION OF THE STUDENTS AND TEACHERS 21
   - 4.2. STRENGTHS 23
   - 4.3. WEAKNESSES 24
   - 4.4. OTHER FOCUS-GROUP COMMENTS 25

5. **EVALUATION OF THE SERIES *CHEMICAL SOLUTIONS*** 27
   - 5.1. DESCRIPTION OF THE STUDENTS AND TEACHERS 27
   - 5.2. OVERALL EFFECTIVENESS OF THE SERIES 29
   - 5.3. EFFECTIVENESS OF EACH PROGRAM 32
   - 5.4. STUDENT APPRECIATION OF THE SERIES AND PROGRAMS 34
   - 5.5. PARTICULAR COMMENTS ABOUT THE PROGRAMS 39
   - 5.6. FURTHER COMMENTS FROM THE QUALITATIVE SESSIONS 42

6. **CONCLUSIONS AND RECOMMENDATIONS** 44

REFERENCES 49

1. INTRODUCTION

This report presents the results of an evaluation of two series of programs on substance abuse produced by the TVOntario Department of Youth Programming. The evaluation was conducted by Evaluation and Project Research of TVOntario during the months of April to June 1991.

In May 1990 the Provincial Anti-Drug Secretariat provided TVOntario with funds to help Ontario school boards with drug education programs by producing video series for use in the classroom. Two English-language video series were developed. Teacher guides were produced to complement the video programs.

The Anti-Drug Secretariat provided additional funding to the Addiction Research Foundation (ARF) to enable ARF and TVOntario to take advantage of each organization's expertise. Working together with the Anti-Drug Secretariat, these three partners developed the Substance Abuse Prevention Program. It included the video series, teacher guides and a teacher training component.

The first series of six 15-minute programs, *Dealing with Drugs*, was designed for grades 7 and 8. Each program features a game or quiz show, a continuing soap opera, a detective story, "commercials" and a "nightly news" program. The different segments are each spoofs of common television programs. The magazine format of the programs serves to present information about drugs and drug abuse. A teacher's guide accompanies the series.

Entertainment and humor are used in *Dealing with Drugs* to encourage viewers to make informed personal decisions about drug use. The open-ended dramas (a soap opera and a detective show) encourage students to try and deal themselves with the value decisions facing the characters. Other segments (game and quiz shows, information segments and teasers) present facts and correct common misunderstandings about drugs. The series recognizes the focus on living skills of the Ontario Ministry of Education/Health program guidelines.

The second series, *Chemical Solutions*, was designed for senior highschool students. It, too, consists of a series of six 15-minute programs. Each program is a drama intended to stimulate class discussions about substance abuse. Self-esteem, health risks, peer pressure, social patterns of drug use and the dangers of dealing illegal drugs are among the issues illustrated by the dramas. A teacher's guide accompanies the series.

Each program presents a different genre: comedy, drama, suspense, science fiction and mystery. Runaways, defiant teens, children of parents with social problems, abused children and "do-anything-to-win" athletes are some of the characters. Each is faced with a decision. Decision-making and responsibility in life are among the central messages of the programs.

This evaluation study assesses the educational impact of the two series. It examines the response of students and teachers to the programs, the effectiveness of the series, the usefulness of the teachers guides, and any heightened awareness of issues central to substance abuse which the programs may have generated among students. The evaluation of each series relied on preliminary telephone interviews with teachers, written questionnaires completed by teachers, a series of written questionnaires completed by students before, during and following their viewing of the six programs, and in-class visits by the principal researcher to observe students viewing the programs and to carry out focus group discussions with both teachers and students.

From January through April 1991, the two series were promoted and made available to schools across the province. By April close to twenty school boards had purchased the programs, and through curriculum advisors, audio-visual librarians, and department heads in the schools, teachers were being informed of their availability. A number of boards appeared to have plans to continue with more vigorous promotion in the fall of 1991.

While the video programs were being distributed, initiatives of TVOntario began being designed to help train teachers in the creative use of video to deliver effective substance abuse education. These initiatives included single workshops and the more ambitious Quality Education Project and Multi-phase Workshops. Some of the teachers involved in workshops, where the series *Dealing with Drugs* or *Chemical Solutions* were mentioned, were among those recruited for this study. A separate evaluation titled: "Substance Abuse Prevention Project - Evaluation of the Multi-Phase Workshops" was made of the workshops.

Chapter two of this report sets out the process of evaluating the video series, the method and sample. The third and fourth chapters report the results of the quantitative survey and qualitative discussions with teachers and students in the intermediate grades who used the series *Dealing with Drugs* in class. The fifth chapter reports the results of the study of the series *Chemical Solutions* used by the senior level classes. The final chapter presents some conclusions and recommendations about the two series.

It should be noted that during testing high schools were winding down, preparing for exams or doing outdoor physical education, thus making an evaluation of *Chemical Solutions* somewhat disadvantageous. Further data gathered throughout the next school year may add to the results.

2. DESCRIPTION OF EVALUATION

Although the Substance Abuse Project is one project, the evaluation of the two series *Dealing with Drugs* and *Chemical Solutions* is best thought of as two separate studies. The two series are quite distinct in format. They are each aimed at different grade levels, and their objectives are somewhat different. Although both series aim to impart information about drug use and abuse, *Dealing with Drugs* conveys information more directly while *Chemical Solutions* aims primarily to stimulate reflection and discussion.

Because the primary objectives, the format and target audiences are different, the results of these two studies are reported separately. The method of evaluation, however, for the two series followed a similar pattern, described below.

Although some research exists on the effects of TV advertising and television portrayals of drug use which may result in increased drug usage among youth (references #1,3), there is little research on the impact of television public service announcements or other use of television which tries to counter the prevalent pattern of positive portrayals and advertising which encourages, especially, smoking and drinking among youth. This summative evaluation measures immediate reactions of teachers and students to the programs in the two series. Further research will be necessary to assess the more important, longer term impact of the two series on behavioral patterns.

2.1. PURPOSE

The main objectives of the evaluation were:

1) to determine the overall effectiveness of each series in delivering the desired message to young viewers;

2) to obtain both student and teacher reactions to the particular approach used in each series;

3) to examine some specific concerns and interests expressed by the producers;

4) to assess the usefulness of the accompanying teacher guides;

5) to assess how the series were used and by whom;

6) to submit recommendations concerning future use.

Areas investigated included:

- effectiveness of the two series, and of each program in the series, in delivering the message; the impact of programs on the viewers; how well the programs encouraged discussion, reflection, and follow-up action;

- teachers' and students' reactions to the program formats, the characters, the visuals, and the story lines;

- for the senior highschool series, *Chemical Solutions* – the degree to which the programs reflected student reality and how well students identified with the characters and story lines;

- in the series *Dealing with Drugs* for grades 7 and 8, the effectiveness of each program element (e.g. dramas, news show, game show); and how well the information was actually understood;

- potential regional differences in student and teacher reactions: north/south, rural/urban; differences in responses of male versus female students and male versus female teachers;

- perceived relevance of program content to local needs or problems; relation of program content to problems identified by the teachers and students in their school or community;

- differences, if any, between mediated viewing and non-mediated viewing, and between viewing by those classes where the teacher had participated in the Q.E.P. workshops set up to train teachers to use the videotapes effectively;

- manner in which the videos were used in the school situation, and the nature of any auxiliary classroom activities before, during, and following video viewing;

- manner in which the teacher guides were used with the videos;

- relation, if any, between the videos and existing curriculum;

- strengths and weaknesses of the programs for classroom use.

2.2. METHOD

Two methods were used to survey the reactions of students and teachers.

1) Quantitative Survey

Teachers were interviewed by phone before using the videotapes in class, and completed a post-test questionnaire. The students completed eight separate questionnaires, a 'pre-test' questionnaire before viewing the video, one after each of the six videos, and a 'post-test' questionnaire.

The pre-test student questionnaires queried students' attitudes to, and awareness (or knowledge) of drugs and the related scene. The post-test student questionnaires tested attitudes and awareness again to determine if any change resulted from viewing the program. An additional set of questions elicited students' reactions to the programs, program format appeal, believability, character credibility, scene and story line appeal, and the impact of separate program elements (especially for the grade 7 and 8 series). The questionnaires allowed for any additional evaluative comment by the students to the issues presented or to the programs. A student completing all eight questionnaires would have responded to more than 140 questions over the period of time taken by his or her class to view all the programs, providing an extensive monitoring of student reaction to the series.

The teacher questionnaire asked for teacher assessment of the impact of the programs, the usefulness of the programs and the teacher guides, program relevance to the "drug scene" at their school, and comments on strengths and weaknesses of the programs.

2) Qualitative Discussion Groups

The quantitative survey was supplemented by a series of visits by the researcher to school classrooms in order to initiate qualitative interviews and discussions with students and teachers. The researcher also observed viewing behaviour. Eight such visits were made, four at the intermediate level, four at the senior grade level.

2.3. SAMPLE

Eight intermediate classes and seven senior classes were recruited for the quantitative part of the study. Four intermediate and four senior classes were visited for purposes of the qualitative discussions. These 23 classes of students with more than 550 students in total represented a good range of rural-urban and southern-northern diversity across the province. No classes in the eastern or southwestern ends of the province were recruited because of the very few schools in those areas that had received the video programs.(See Table 1.)

Table 1
Classes by Region and Rural or Urban

Region	Rural	Town	Urban
North	2	4	
South	2	5	10

The teachers from both sets of classes – teachers in the classes surveyed with the quantitative instrument and teachers in the classes visited by the researcher – completed the pre-viewing interview and the post-viewing questionnaire. Thus, the teachers from both quantitative and qualitative groups were put together for the quantitative portion. The more extensive face-to-face interviews with those teachers visited provided further information for the qualitative portion of this study.

Care was taken to recruit teachers who had at least some experience in the use of video in the classroom. This ensured that study was not confounded by teachers with little or no experience in video use or who were not favorably predisposed toward the use of video in the classroom. The emphasis of the study was on the program content and format.

The particular samples for each segment of the evaluation are described in more detail below. However, some difficulties in recruiting teachers and classes should first be noted. As in any study of this kind, those teachers who agreed to be involved in the evaluation represent a group of teachers more open not only to the use of videotaped programs in class than the average Ontario teacher, but also keener to pursue substance abuse education.

The time of the school year in which this evaluation took place was not, according to school board advisors as well as teachers, the best time of year to undertake either a drug education unit or a unit made up of a continuing series of videotape programs. The researcher spoke with seventeen school boards across the province in order to recruit a mix of male and female teachers and classes for the evaluation. Most teachers, at both intermediate and senior levels, had already dealt with substance abuse in their 1990-91 curriculum. Thus, there was some difficulty in recruiting teachers. Three boards withheld permission to undertake the evaluation in their schools because of the strong reluctance expressed by teachers and school board curriculum advisors to undertake a program that requires at least two weeks of classes to complete.

Furthermore, a number of teachers who had begun participation in the TVOntario Quality Education Project workshops were reluctant to begin using the video series until they had completed the workshops during the 1991-92 school year. Many other teachers who knew of the substance abuse series did not want to use the tapes until the fall of 1991.

It should be noted, too, that teachers who had not participated in the TVO professional development workshops were, on the whole, not well informed about the existence of the two series. School board audio-visual departments and advisors had only just begun informing schools and teachers of the existence of the tapes although the tapes had been purchased one to three months earlier. Audio-visual staff and school librarians indicated their intention of promoting the tapes more vigorously in the coming school year.

In comparison to the senior highschool teachers, intermediate teachers were more eager and ready to use the series *Dealing with Drugs* immediately. Thus they were, more amenable to participation in the evaluation than were senior highschool teachers. Substance abuse education also appeared to be more of a concern amongst the intermediate level teachers and board curriculum advisors than at the senior level.

All senior level teachers in the seventeen school board areas contacted had already dealt with the "drug unit" in their curriculum. This unit was typically handled by physical education/health teachers although a few other senior high school teachers took up drug-related issued in other courses. The April to June period is a period in which physical education and health teachers try to have students participate in outdoor activities as much as possible. This was another reason for their reluctance to participate in the evaluation study. Eight of the twelve senior level teachers who did agree to participate in the quantitative and qualitative evaluation were physical education teachers, the others included teachers of language arts, grade 12 law, and the school librarian.

1) The Quantitative Survey

Eight classes were recruited at the *intermediate* grade level in order to assess the impact of the series *Dealing with Drugs*. Five of these teachers had participated in the TVOntario teacher development Quality Education Project workshops where they had been introduced to the video series *Dealing with Drugs*. All teachers had expressed interest in both substance abuse education and in the value of audiovisual methods of in-class instruction and education. Five of the classes were in the northern sector of the province, three of these in large towns, two in rural areas. The other three classes were recruited from the Metropolitan Toronto area. Chapter three provides more descriptive profiles of the teachers and students.

Seven classes were recruited at the *senior* grade level in order to assess the impact of the series *Chemical Solutions*. Three of these teachers had participated in the TVOntario teachers development workshops. All teachers had expressed interest both in substance abuse education and in the value of videotapes for in-class education. Four were physical education teachers; three classes were in Toronto Metropolitan schools, two were town schools and two were rural schools. Chapter five provides more descriptive information on the teachers and students.

2) The Qualitative Survey

Four classes were recruited at the *intermediate* grade level for visits by the researcher and in-class discussion with students. Two of these classes were taught by teachers who had participated in the Quality Education Project workshops; two had not. The four teachers were all keen to pursue substance abuse education with audio-visual methods, although one teacher was more interested in the videotape programs as a stimulus for writing assignments in English. Two classes were in Metropolitan Toronto schools, one was in a town school and one was in a rural area school.

Four classes were recruited at the *senior* grade level for the qualitative discussions. Two of the teachers had begun participation in the workshops; two had not. All four were happy to introduce the students to additional material on substance abuse, though they were less keen than the teachers at the intermediate level. One class was in Metro Toronto, one in the immediately adjacent suburbs, one in a town, one in a rural school.

A Note about the Proportion of Respondent Completion of Questionnaires

The arrival of warm and sunny weather in late April, May and June conspired to upset students as opportunities for outdoor activities were set aside in order to view the videotapes. Increased absenteeism due to extra-curricular activities and out-of-school demands on teachers and students resulted in some incompletion of all eight questionnaires by some students. Furthermore, students did not provide answers to all questions on each questionnaire completed.

Nonetheless, a large enough number of students at the intermediate and senior level, completed test items to allow for reliable assessment of student response. And enough students across different regions (north/south, metro/urban, suburban/small town/rural) were surveyed to gain a reliable assessment of any variation in student response to the video series due to such differences. Students completing even a portion of the questionnaires provided reliable descriptive data on student response to the queried items which were completed. For intrasubject analysis (for instance, pre-viewing attitudes compared to response to specific features of the programs, or pre-test knowledge of drugs versus subsequent learning) and for comparative evaluations (for instance, boys' versus girls' responses, mediated viewing versus non-mediated viewing), there were a requisite number of completed questionnaires at both levels, intermediate and senior, to allow for a high level of confidence in the results of the evaluation.

Each table of comparisons indicates the total number of students completing the necessary question items to allow comparisons to be made; and other descriptive summaries also indicate the number of student responses on which such summaries are based.

3. QUANTITATIVE EVALUATION OF THE SERIES *DEALING WITH DRUGS*

3.1. DESCRIPTION OF THE STUDENTS AND TEACHERS

A description of the students and teachers was compiled from the pre-tests. All teachers are included in summary descriptions below because they all completed the written questionnaires whether they were teachers of the classes recruited for the quantitative study or the classes recruited for the qualitative study.

The Teachers

There were twelve teachers recruited, eight for the quantitative study and four for the qualitative study of the series *Dealing with Drugs*. Five of these teachers were from the northern area of the province. Five of the seven teachers in the southern area were from the larger Toronto Metropolitan area.

Generally, all teachers felt the videotaped series might provide additional information, and supplement or reinforce the information on drugs and substance abuse which the teacher could provide. Several teachers pointed out that they wanted to use the series since drug education is mandated, and one said, "the current program is unsuitable." A couple of the teachers felt strongly that video was a good way to engage student attention. In addition to drug education objectives, two teachers used the video for media literacy objectives, one for writing assignments and as a stimulus for dramatic activities in language arts. A fourth teacher used the series for "drama/debate and writing."

These grade 7 and 8 teachers taught a range of subjects. Five of them were core or home room teachers, the other teachers taught English. One teacher was the school librarian who typically handled such curriculum units as drugs or other material related to counselling. The subject taught by these intermediate level teachers made no apparent difference to viewing patterns or students' response to the programs.

Drinking was identified as a problem for grade 7 and 8 students by teachers at three of the schools in the north. Only one teacher in the Toronto Metro area indicated that drugs "may be a problem" for grade 7 and 8 students at their school. Six of the twelve teachers felt neither drugs nor drinking were a problem for any of their students "yet," although they agreed that drinking probably was a problem for older students in their areas.

The method and conditions of use of the programs were the same for all teachers. They had students view only one fifteen minute program in each class period with follow-up discussions with the students. There were few if any classroom activities other than the discussions which focused on issues raised by the video programs. Even teachers who had greater familiarity with the teacher guide, including those who had begun participation in the Quality Education Project workshops, were not able to utilize the numerous ideas and suggestions from the guide. This was due primarily to the time of year and the shortness of time in which to conduct a curriculum unit involving six programs.

After beginning the evaluation study with the pre-test questionnaire, screening of the first program, and completion of the questionnaire designed to measure response to that first program, one of the eight teachers decided not to continue with the other programs. This teacher, from a school in the north of the province, reported that during the first program students had been rude and quite undisciplined. This report of inattentive viewing behavior was quite contrary to all other reports of teachers and contrary to the researcher's own experience in observing students watching the programs. The "attention-holding" feature of the series *Dealing with Drugs* was one of its strongest features. This particular teacher did point out that this group of students was unusually difficult and rowdy, and that the time of year, May and June, was not suitable for such an extended drug education unit. She also indicated that she planned to use the series again. Regrettably this teacher did not inform the principal researcher until the end of the school term. Hence, a replacement class could not be recruited. Nonetheless, the students did respond to the questionnaire on the first program so that some information about student response was obtained.

A second class screened only the first three programs, completing the evaluation questionnaires for programs one through three. In this case lack of time caused largely by end-of-year activities upset the teacher's plans to screen all six programs.

Descriptive statistics and comparison tables indicate the number of students (n) responding to the test items relevant to each group of results reported below.

The Students

The male/female split in the student population responding to the questionnaires was 59% male and 41% female (n=185). Some difference in appreciation of the different segments of the programs due to gender of the student is reported in section 3.4. below.

Of the 185 students responding to the question about language spoken at home, 109 reported English as their home language, 27 reported French, and 49 students reported 18 other languages. Language in the home had some influence on student appreciation of specific segments (reported in section 3.4. below).

Students were well aware of the names of many illicit drugs before the series was introduced in the classroom. 87% of the students listed between three and six drugs (although spelling for the majority of students was nearly always incorrect). This awareness was *not* related to student gender, whether students were in the city, town, country, or in the north or south of the province.

With regard to general attitude to drugs prior to viewing, almost all students, male and female, in all regions of the province, reported a negative attitude to drug use. This confirms the recent Addiction Research Foundation report. (See *Toronto Star* "Drug Wars" series, July 18, 1991 and the letter from President of ARF in the *Toronto Star* Sunday, August 4, 1991, p. B2). Only one of the 185 students felt the words "cool" or "smart" were the "right" words to describe those who take drugs and only two students indicated that they felt it was "right" to take drugs in order to keep friends. Almost 90% of the students thought it "wrong" to think of drugs as "cool" or "smart" in order to make or keep friends, the others (10%) did not know (n=185).

Students were asked: "Why do kids take drugs?" 74 students still felt that the desire "to be cool," "to show off," "act tough," "be like a big kid" was the principal reason; 28 students felt "fitting in," "being with" friends or the crowd was one reason; 27 students felt problems "at home," "at school" or "with friends" was another reason; 18 felt the reason was "to get high," "feel good" or "have fun." Only four students used the phrase "peer pressure" (a sharp contrast with senior students, see section 5.1.).

Student perception of drug abuse as a local problem ranged from 32% who felt drug abuse is "a big problem" in their local community, to 52% who felt it is "a little bit of a problem," to 16% who felt it "not a problem." This difference in perception was *not* related to gender of the students, or to whether they were from the north or south of the province, from city, town or country, nor to the language spoken in the home. Furthermore, this difference in perception amongst students about the gravity of drug use in their community did *not* have any measurable impact on the way in which students reacted to the programs, their appreciation of different segments, or to any change in knowledge or attitude which could be linked to the programs.

3.2. OVERALL EFFECTIVENESS OF THE SERIES

The Teachers' View

All twelve teachers thought the series was relevant to local needs and problems.

While three teachers did not feel able to comment on the series' impact on students' attitudes to substance abuse, the other nine teachers all felt the series had at least some impact on students' attitudes or behavior – and three teachers thought the effect was more than just a little.

Eight of the teachers felt the series was effective, and four of these felt it was highly effective. All of these teachers wanted to use the series again in class. They commented voluntarily: "Thanks for the great series." "An excellent series." "The videos leave all kinds of room for discussion. Dealing from drug abuse to strengthening peer pressure, true friendship. I would love to have spent more time with it."

Only two teachers felt the series was not effective, and two felt the series neither particularly effective nor ineffective. These four teachers would not use the series again. "Some of my students thought the video was silly." "Students are not sophisticated enough for sarcasm in the spoofs."

While three teachers did not feel the programs stimulated discussion at all, nine teachers felt discussion was generated by the programs. Five of these felt such discussion was no greater or more intense than the typical classroom discussion, but three teachers felt the discussion generated was deeper and more substantial than usual.

In light of such a positive evaluation of the series by classroom teachers, what might explain why a few of the teachers had some reservations about the effectiveness of the series even though they felt it relevant to local needs and likely to affect students' attitudes positively?

The single most important difference between those teachers who felt the series was effective and those who did not was whether the teacher had participated in the TVOntario Quality Education Project workshops. The four teachers who failed to evaluate the series as effective had not participated in those workshops. All the teachers who had participated in the workshops judged the series to be effective.

Effect on Students' Attitudes

Sixty nine percent of the students felt the programs made them feel "more careful about drugs." Twenty six percent felt the programs "did not change their views about drugs" and 5% felt the programs made them feel "less careful about drugs" (n=134). This range of response was not related to student gender, home language, geographic location of their school, prior attitude to drugs as a local problem, or to their teachers' perception of the effectiveness of the programs or their participation in TVOntario workshops.

Although this subjective, test item measured a change in attitude, no difference in attitude could be measured by other more objective test items. because the attitude to drug use was so entirely negative before viewing. For example, following the programs 90% of the students felt that "kids should feel free to say 'no' if their friends ask them to smoke marijuana." This reflects pre-viewing attitudes. There was also virtually no change at all in the reasons students cited on an open-ended question as to "why kids take drugs"(see students' pre-test reasons, p. 11 above).

There was no relation between change in attitude and such factors as student gender, home language, geographic location, prior attitudes and awareness, and teacher's participation in the workshops. Any changes that may have occurred within any subgroups of students defined by these characteristics were not measurably different. Differences must have been due, therefore, to more personal student characteristics (differences in personality or intellectual capacities) not examined in this study.

Effect on Student Knowledge

As indicated above, students did not alter the reasons given to the question "Why do kids take drugs?" This measure, therefore, reflected little gain in student knowledge since the relation between loss of self-esteem and drug abuse was introduced in a significant way by the video series.

However, with regard to awareness or knowledge about drugs themselves, 64% of students were able to increase the list of names of drugs following the programs from the list they had indicated before seeing any of the programs (n=132). Caffeine or coffee, for instance, appeared more frequently than prior to viewing. There had clearly been some gain in knowledge and awareness because of the programs.

Information or knowledge gain by students was also reflected in student response to factual questions following each program. *Correct answers* to a series of seven questions seeking factual answers were obtained from the following proportion of students:

(1) 76% (n=183) (2) 54% (n=145) (3) 65% (n=146)
(4) 61% (n=136) (5) 87% (n=106) (6) 74% (n=107)
(7) 79% (n=107)

On another question related to the "Detective Series" whether students had understood that the heroine had, at the story's conclusion, regained her self-esteem, 96% of students indicated that she realized either she had never lost her self-esteem to begin with (76%) or had regained it (20%). Only 4% indicated incorrect answers (n=113).

In response to the question "Is drug use in Canada on the increase, decrease (the correct answer) or at a plateau?" 34 students answered correctly before viewing the programs, 77 students did so after viewing the first program.

These gains in student awareness and knowledge are also reflected in the students' own perception of their learning from the programs. The majority of students felt they had "learned a few things" at least, and more than 10%, "a lot." The following table (Table 2) indicates students' self-perception of learning following each of the six programs. The second, fifth and sixth programs recorded the lowest measures of learning, according to students from the discussion groups, because they presented less new information than the others.

Table 2
Student Perception of Learning

	First Program	Second Program	Third Program	Fourth Program	Fifth Program	Sixth Program
Student felt he or she learned "a lot"	10%	11%	12%	15%	15%	10%
Student felt he or she learned "a few things"	76%	69%	79%	77%	69%	71%
Student felt he or she learned "nothing"	14%	20%	9%	8%	16%	19%
	(n=185	=147	=137	=107	=108	=113)

As with changes in attitudes, there was no relation between knowledge gain and student gender, home language, geographic location, prior attitudes and awareness, teacher's participation in the workshops, and the teacher's own judgement about the effectiveness of the video programs.

3.3. REACTIONS TO PROGRAM APPROACH AND FORMAT

Teachers' Reactions

Seven of the teachers found the programs interesting (and three of these found them "very interesting"). Two felt the programs neither particularly interesting nor uninteresting, and three felt they were not interesting. The three who felt the programs were not interesting had also felt the programs were not effective. They had not participated in the TVOntario workshops. One of the two teachers who felt the programs neither interesting nor uninteresting had not felt the programs effective. He, too, had not participated in the TVO workshops for teachers.

None of the teachers felt the programs were either too mature or too childish. Three teachers felt the programs perhaps a little mature, and one felt them just a little childish; the eight others felt they were properly balanced between too mature and too childish.

All the teachers felt the fifteen minute length was just right for classroom use.

Five of the teachers thought there may have been a little too much information in each of the programs; the seven others felt there was just the right amount of information (neither too much nor too little). Two teachers felt the programs moved from segment to segment too quickly, that transitions were too rapid. This comment was echoed by students in each of the classes recruited for the qualitative discussions.

Only one teacher thought "a few" scenes were "unsavory" or too "hard core," and another teacher thought "one or two" scenes "unsavory." No scene in particular was identified. The ten other teachers all felt there were absolutely no "unsavory" or "hard core" scenes in the programs.

Further teacher reaction to the programs' approach and format came out in the qualitative interviews with the teachers. This is reported in chapter four.

Student Reactions to Program Approach and Format

The clearest measure of response to the programs were student answers to the questions, "Did you like watching the programs?" "Would you watch these programs at home if they were on TV?", and "Did you like the format or style?" Two-thirds of male students and more than four out of five female students liked the programs. More than four out of five of all students indicated the format was at the very least "o.k." (see Table 3). A large majority indicated they would watch the programs on TV. These quantitative measures of student appreciation were echoed in the qualitative survey (see section 4.2.).

Of interest, there was no relationship between student response and language in the home, prior student attitudes to drug use as a local problem, nor geographic location of the student and his or her school. There was, however, some relationship to student gender. Female students indicated greater appreciation of the programs, including the program format, than male students.

Table 3
Students' Appreciation of the Programs

	Liked programs	Did not like programs	Would never watch on TV	Would watch on TV
Males	68%	32%	27%	73%
Females	84%	16%	13%	87%

(n=133)

Students' Appreciation of the Format

	"Yes" students liked the format	Students felt format "o.k"	"No" students did not like format
Males	31%	53%	16%
Females	25%	66%	9%

(n=130)

When students were asked about whether they liked each particular program, responses reflected these overall figures. The questions about each particular program distinguished between liking the program "a lot" or only "somewhat." Table 4 reports on student appreciation of each program.

Table 4
Students' Appreciation of Each Program

	Student liked program "a lot"	Student liked program "somewhat"	Student didn't like program	
No. 1	18%	66%	16%	(n=188)
No. 2	23%	68%	9%	(n=148)
No. 3	17%	68%	15%	(n=138)
No. 4	20%	72%	8%	(n=109)
No. 5	17%	71%	12%	(n=108)
No. 6	23%	65%	12%	(n=113)

Table 5 shows the distribution of student responses for each program.

Table 5

Boring/Interesting Scale

Program No.	Boring>	1	2	3	4	5	<Interesting
1		14%	15%	27%	27%	17%	(n=183)
2		10%	20%	27%	26%	17%	(n=144)
3		15%	16%	29%	30%	10%	(n=133)
4		11%	17%	29%	27%	17%	(n=103)
5		17%	20%	23%	28%	12%	(n=104)
6		15%	12%	31%	25%	17%	(n=110)

Confusing/Not Confusing Scale

Program No.	Confusing >	1	2	3	4	5	<Not Confusing
1		11%	12%	22%	23%	31%	(n=183)
2		5%	11%	18%	21%	35%	(n=144)
3		1%	10%	21%	28%	39%	(n=133)
4		3%	2%	27%	24%	43%	(n=103)
5		3%	11%	24%	20%	40%	(n=104)
6		6%	7%	25%	17%	44%	(n=110)

Hard/Easy to Watch Scale

Program No.	Hard>	1	2	3	4	5	<Easy
1		14/%	8%	20%	21%	37%	(n=183)
2		1%	8%	24%	20%	37%	(n=144)
3		11%	8%	24%	16%	41%	(n=133)
4		9%	7%	19%	19%	45%	(n=103)
5		9%	10%	24%	18%	38%	(n=104)
6		15%	5%	25%	15%	40%	(n=110)

Fast/Slow Scale

Program No.	Fast>	1	2	3	4	5	<Slow
1		17%	21%	42%	10%	9%	(n=183)
2		17%	17%	47%	9%	8%	(n=144)
3		13%	18%	46%	11%	10%	(n=133)
4		17%	11%	48%	10%	13%	(n=103)
5		19%	13%	46%	10%	11%	(n=104)
6		22%	14%	40%	11%	13%	(n=110)

Questions which attempted to characterize student response in more particular ways confirmed the generally appreciative reaction of students to the programs. More students felt the programs were "too short" than students who thought them "too long" (as would be expected if the programs were liked). And more students thought the programs "interesting" than students who thought the programs "boring." These particular reactions were not related to student gender, home language, or region of the province.

Furthermore, more students felt the programs "easy to watch" than those who felt they were "hard" to watch. More students felt the programs "not confusing" than those who felt they were "confusing." However, there were some students of both sexes across the province who did find the programs a little hard to watch and a little confusing. A number of students made comments similar to the following from one female student. "I didn't like the way the scenes always changed. You would get interested in something then it would suddenly change." However, other students echoed the comments of one who noted, "I liked the programs. It's sort of like a few TV shows put together. It's done in a unique way."

More students thought the programs were "too fast" than those who thought the programs were "too slow." Describing a program as "fast" may mean the student thought the program "interesting" or "too short." On the other hand, a program judged to be "too fast" may be more related to the fact that a student found it "confusing" or "hard" to watch. This student perception is difficult to interpret. Clearly , however, the students felt the programs do not lag.

Believability of the Programs

Believability of the programs is normally a very important feature of dramatic presentations, news programs, or purely informational programming. However, the *Dealing with Drugs* series was designed in such a way that segments were spoofs or take-offs of typical television programs. Thus, student ratings of credibility or believability are difficult to interpret. That segments were not credible or believable indicates perhaps that students understood the segments, correctly, to be spoofs. Nonetheless, more students felt the programs were believable than students who thought they were not. It could have been, however, that they were credible or believable spoofs – whatever that might mean.

Table 6
Believability of the Programs

Program No.	Hard to Believe>>	1	2	3	4	5	<<Easy to Believe
1		12%	13%	28%	27%	20%	(n=182)
2		6%	13%	34%	19%	27%	(n=144)
3		4%	13%	29%	21%	31%	(n=136)
4		7%	10%	23%	25%	34%	(n=106)
5		10%	8%	31%	22%	28%	(n=107)
6		10%	8%	29%	19%	34%	(n=112)

On the one hand, students felt the soap opera "The Young and the Breathless," which they generally liked more than any other segment, was "phoney" in so far as the characters were concerned. On the other hand, they thought the story line was credible: "The soap opera made sense, and was like in a real situation." In the qualitative interviews, too, the story line was judged to be believable on the whole even though the "acting" was criticized. While as many as 47% of the students did feel "The Young and the Breathless" was "phoney," this figure has to be carefully interpreted. It seems somewhat contrary to the rather small figures of less than 25% which felt the *Dealing with Drugs* programs were "hard to believe" on the whole. Part of the difference may be due to the more passive question which asked students to rate the programs on a five-point scale of hard- to easy-to-believe versus the more suggestive question: "Was the soap opera phoney?" The latter question would tend to elicit more agreement with the segment being "phoney" than the former question would elicit students' judgement about the programs being "hard to believe."

3.4. RESPONSE TO SPECIFIC PROGRAM SEGMENTS

As indicated earlier, there was some relation between student gender and response to particular program segments. In particular male students preferred the news segments more than female students, and female students typically preferred the soap opera more than male students.

Table 7
Segments Preferred by Students

Segment	% Listing segment as among favorite	% Males	% Females
Game show	34%	36%	31%
Detective series	32%	33%	31%
Ads "D.I.N."	12%	14%	7%
News segment	18%	24%	9%
Soap opera	76%	66%	89%
Health segment	23%	15%	34%

(n=134)

A couple of segments, "The Detective Series" and "The News," were appreciated more by students in classes where the teacher had participated in the TVOntario workshops than in other classes, while the game show and health segments were more liked in classes where the teacher had not participated in the workshops (see Table 8). The reason seemed apparent during the qualitative evaluation visits: Teachers who had participated in the workshops drew particular attention to the detective series as a program about self-esteem; and the workshop teachers tended to reinforce and draw attention to the information provided on the news programs. There appeared to be much less overt reference by workshop teachers to the game show and health segments. If students did not select the detective series or the news program as their two or three favorite segments, it appeared that the game show and health show segments were then selected.

Table 8
Percentage of students listing segment as a favorite by those whose teacher participated or not in workshop.

Segment	Teachers who participated	Teachers who did not
Game show	28%	38%
Detective series	41%	25%
Ads "D.I.N."	12%	12%
News segment	22%	13%
Soap opera	79%	73%
Health segment	12%	30%

It is worth noting how students themselves felt they had learned from the programs and from the different segments. Table 9 reports how students felt they had learned from each program. The two programs judged by the students to have helped them the least in this regard were the introductory program where general information about drugs is provided and the program on alcohol (presumably because students have previously had, both in class and in previous grades, more education about alcohol and alcohol-related problems). There were no apparent relationships between self-ascribed learning and student gender, region or home language, nor was there any apparent relationship to teacher evaluations of effectiveness or teacher participation in workshops.

Table 9
Students' Perception of Learning by Program

	First Program	Second Program	Third Program	Fourth Program	Fifth Program	Sixth Program
Students learned the most from	10%	35%	25%	36%	34%	32%

(n=134) Students were allowed to pick one or two programs as the program from which they learned the most; thus, a total % > 100%.

A detailed examination of student perceptions of learning across the different segments through the six different programs helps to identify which particular segment was thought by students to be especially beneficial. There were two ways in which this was measured. They give somewhat different impressions. In Table 10 below we note that the game show, the ads, and the soap opera were scored the highest by students based on their judgements after viewing all six programs. Table 11 reports the students' assessment after viewing each program. Here the game show, detective series and soap opera score the highest.

Table 10
Students' Perception of Learning by Segment

	Game Show	Detective Series	Ads	News	Soap Opera	Health
Students learned the most from:	43%	20%	39%	18%	46%	25%

(n=134)

Table 11
Program by Program Perception of Learning by Segment

Program Number	Game Show	Detective Series	Ads	News	Soap Opera	Health
1	44%	32%	11%	28%	57%	10%
2	44%	31%	15%	16%	75%	7%
3	33%	22%	13%	28%	65%	29%
4	19%	34%	16%	11%	69%	38%
5	56%	30%	16%	8%	69%	11%
6	44%	39%	7%	12%	82%	11%

(n=134)

Why is there a difference? One explanation may be that students think they learned something from the ads because the ads present information so directly. The students indicated that the ads presented a lot of information. However, in fact the students may not actually recall the information presented on the ads. The latter, he or she would realize more accurately immediately following viewing a particular program. Considering the segments more in the abstract after viewing all of them over a period of two or more weeks, the students may simply recall that the ads did, after all, present a lot of information, so they must have learned from them.

In the qualitative discussions it did, in fact, seem evident that students could not recall most of the information presented in the ads. They may have known some of this information prior to viewing, but they could not recall what specific pieces of information had appeared in the ad in the particular program queried.

The reason the ads may not have actually been successful is because the information went by so quickly, and without sufficient context (unlike the information in the dramas or game shows), so that the information was not remembered well. The fast commercial-like information presentations had a sense of urgency to them, with a clock ticking off the seconds, that compelled attention but may not have helped students in placing such information in memory. The lack of recall of information presented so briefly and with little context, indicated especially in the qualitative discussion groups, confirms the persistent research finding concerning the minimal levels of recall of information presented on TV news (in a similar presentational style). The game show scored high as it appeared (confirmed, again, in the qualitative groups) to actively engage the students as information was presented. (See References #2, 4)

The two continuing dramatic series, the detective series and the soap opera, were felt by students to have the most impact in their final assessment of the series (as would be expected). The third program's segment on health (a very humorous doctor explaining problems which alcohol consumption causes to the liver) was especially engaging and, apparently, instructive. (This too was confirmed in the qualitative interviews.) The detective series, while evidently not well received, was felt by students to have impact either because of its longer duration and greater presence in the series than other segments or because students were simply able to remember it better than some others. The message of the series also became clear by the final installment even while it was not greatly appreciated in the earlier installments.

It should be pointed out that the student perception of "what they learned the most" might more accurately be interpreted as "what segment the student felt was most engaging." As the soap opera scored the highest consistently, this is probably due less to specific items of information gain than to the overall engagement this dramatic series provides, aiming to generate values reflection more than impart particular information.

3.5. MEDIATED VIEWING AND OTHER ISSUES

The Teacher's Guide

Although all teachers felt the teacher's guide was helpful and well designed, it was not used a great deal. This was due as much to the lack of time and the fact that to evaluate the series, teachers had been asked to set aside other plans. Had the series been used during the normal period of the curriculum for drug education, the guides may have been used more. Even so, teachers indicated that with six programs, discussions and other classroom activities, there was really more material than was possible to use in the curriculum time available.

Those teachers who spent some time with the guides were impressed. "The guide is too long, but it is great. It has many ideas." "The guide is well laid out." "Certainly appropriate." "Great-many activities; many lessons in one."

Sex Role and Character Stereotyping

Teachers indicated that there was no discussion, initiated by them or the students, about sex role stereotyping, and only very little discussion of character stereotyping.

Mediated Viewing

All teachers used the programs in a similar manner (some preliminary introductory comments, screening the program, subsequent discussion with one program per 45 minute to one hour class period). Thus, there was little variation on which to evaluate mediated versus non-mediated viewing.

One possible measure of mediated viewing was the degree to which teachers used the pause facility on the VCR. The use of the pause facility was directly related to whether or not the teacher had participated in the TVOntario workshops. Teachers who had participated typically used the pause button. However, there appeared to be little, if any, relationship between such mediated viewing and student impressions, responses, learning and preferences (beyond those indicated above concerning segment preferences by students - due to teacher participation in workshops).

In Table 7 (see page 18) it is noteworthy that students whose teachers had *not* participated in the workshops (and who did not use the pause facility frequently, if at all) preferred the game show and health segment to other students. One explanation may be that teachers interrupted student engagement in these segments through use of the pause facility. On the other hand, the considerably greater appreciation of the detective series and the news segments by students with teachers using the pause facility could be explained by the fact that students were confused by the detective series, and less so by the news segments. This was noted in the qualitative viewing sessions. Hence, for those two segments the use of the pause and additional teacher comments would have helped students understand (and, hence, engage in) the segment.

4. QUALITATIVE EVALUATION OF THE SERIES *DEALING WITH DRUGS*

4.1. DESCRIPTION OF THE STUDENTS AND TEACHERS

The Teachers

The principal researcher visited four classes from different schools in order to observe students viewing programs from the videotape series *Dealing with Drugs*. All four classes were in the south, two of them in the Metropolitan Toronto area, one in a small town and one in a rural area.

Two of the teachers, a grade 8 core subject (or home-room) teacher, and a grade 8 English teacher, had participated in the TVOntario Q.E.P. workshops for teachers. They had, thus, been introduced to the series *Dealing with Drugs* and how best to exploit the videotapes in class. One of these teachers was very enthusiastic about the series and had worked through four of the six programs before the researcher visited his class.

The second teacher had worked with only one of the programs before being visited by the researcher. Although she intended to carry on with the series, she was not as enthusiastic about the series, and had plans to alter the manner of using the tapes in class. In particular she felt that, for purposes of discussion and writing projects, viewing short segments of each program rather than the complete 15-minute program would allow for more focused discussion and written work. A third grade 8 teacher was a core or home-room teacher who uses videotapes frequently in class, and was interested in a series on substance abuse.

The researcher received permission to show two of the programs to a group of grade 9 boys in a physical education class in an area of Metro Toronto identified as one with a relatively high incidence of drug-related activity. (*Toronto Star* article, 10 May 1991, p.A2, from Toronto Police Report "Drugs 1990 in Perspective"). The teacher indicated his own interest in using the series as described in brochures at the grade 9 level. It should also be noted that of the teachers contacted, many identified grade 9 as the most appropriate and significant grade level for concentrated drug education.

Thus, these four visits for purposes of observation, discussions and interviews with teachers and students provided a good range of diversity for this qualitative phase of the evaluation of *Dealing with Drugs*.

The Students

There were more than 100 students in the four classes visited by the researcher. The two Toronto Metro classes had students from a very diverse background with many E.S.L. students whose home language was not English. The two other classes, one within commuting distance of Toronto, the other in a small town more than 100 km outside Metro Toronto, were made up of students virtually all of whom were native English speakers, none of whom were from any visible minority.

There was an approximate 50/50 split between male and female students except for the boys physical education class. As with the students from the quantitative study group, virtually all students agreed quite strongly that it was "wrong" (even "stupid") to think of taking drugs or drinking as "cool" or "smart" or to "make friends." There seemed generally to be a very negative attitude to both drugs and drinking in all four classes. On the other hand, students said that smoking was engaged in by as many as one-third of the students while all seem to agree that it was not a very "good" or "smart" habit – just something kids try out in large numbers and which then becomes a habit.

It was felt by these grade 7, 8 and 9 students that drug abuse and drinking became problems more at the grade 9 and 10 level than in grade 7 and 8. On the other hand, a significant minority of students agreed, too, that the students that eventually "got into trouble" by smoking or drinking were beginning to get involved as early as grade 6. These students, albeit a minority, felt grade 6 was the most important year in which to begin drug education, even though the majority thought grade 9 was the best year to begin drug education.

The students appeared to be very knowledgeable about the names of drugs, although the small town class at the furthest remove from Toronto provided standard names for drugs while the class of boys in an area of Metro Toronto identified as an area of high incidence of illegal drug activity provided a remarkable variety of "street" names for illicit drugs during the discussion period.

4.2. STRENGTHS

Students generally felt the series was not a waste of time. Comments typical of many students: "I would watch these programs at home because I can get one or two answers, and a laugh." "I liked it because it was different from most of the other drug shows." "I liked the program but it was too short." "I like the program I just saw. I like it because of the way they get their point across in a way we would understand."

The soap opera, "The Young and the Breathless" was particularly well received. The game and quiz shows were as well, though not quite as much as the soap opera. They were much more appreciated than the commercials, the health show, and, of course, the detective series.

The soap opera, "The Young and the Breathless" was very well received – "a hit." It encouraged students to mention the very expensive network series, *Degrassi High.* Though this soap opera was "cheap," in the words of students, compared to that program, to even have that program come to mind indicates some engagement by students with its story line and the characters, "Melissa" and "Garth" being mentioned as they had been in open-ended questions in the quantitative study. One student's comments were typical: "I like 'The Young and the Breathless,' the way it's set up. It shows how a person changes and acts when they use drugs, and how her friends seem to be nagging her." The fact that it was a continuing series, from program to program, appeared to help in the level of engagement with which students related to the program. However, this continuing feature did not appear to be significant in terms of encouraging – or discouraging – continued use of the series.

As with the quantitative study, this striking preference for the soap opera series "The Young and the Breathless" was indicated across both sexes, at both grade levels, and in the city and country. On closer questioning it seems clear that students identified closely with the characters on the soap opera "The Young and the Breathless." They found the story line clear and the dialogue and situations comprehensible.

Level of Attention

Common to all four groups of students was a high level of attention once the video programs began. This attention was held through the program to the very end in all classes and with each of the six programs. Of particular note was the high level of attention in the boys physical education class, despite their more typical rowdy and inattentive classroom behavior. It should be added that the one group which did drop out of the series (see section 3.1., quantitative survey) was clearly a most exceptional, and difficult class. Following an interview with the teacher, the researcher felt the teacher was having major problems with the teacher's own organization of class activities, and that the series had little to do with the group's apparent disfunctioning.

The programs are clearly able to hold the attention of intermediate level students. This viewing behavior is perhaps more significant than student response to the question whether or not they would watch the series on TV at home. In the qualitative discussion groups, where responses are not private, students tended to declare a complete absence of any interest in viewing such programs at home. On the quantitative questionnaires, as is common, students tended to be perhaps more positive than their actual behavior would ultimately indicate. They indicated, with quite high percentages, that they might watch the programs at home on TV.

Common to each group was the feeling that the program's format was better for grades 6 and 7, although almost all students felt grade 9 was the more important grade level for videotapes on drugs.

An Engaging Format

Most students and all teachers thought the format, with different segments and an entertainment style, was effective. The videos were also thought by a couple of teachers to provide excellent segments for language arts classes, as material to stimulate writing work, and as valuable illustrative material for media literacy units.

4.3. WEAKNESSES

Rapidity of Segment Transitions

In contrast to the general approval of the format, a less than unanimous view, but one held by a large number of students, was critical of the rapid or abrupt transitions from segment to segment and the uncomfortably short duration of each segment. Students expressed frustration at the speed of change from segment to segment. Just as they became engaged in a segment, it ended; and there was no time to reflect, no music bridges or pauses that allowed for reflection. A few students compared the format to "channel switching" – but channel-switching controlled by someone else.

"It gets a little bit confusing, all the switching." "Make the sections longer. They jump too much." "It went too fast." These were some typical comments of students even when they admitted that the fast pace did help to keep the programs from becoming "too boring."

There appeared clearly to be some confusion and frustration caused by the frequency of segment transitions. A teacher noted that more time, a music bridge or pause, would have helped; and his students agreed. Longer and fewer segments were voted nearly unanimously by students in the qualitative discussion groups as a more desirable format. In a population of student viewers, there probably is a portion who are able to deal, at a cognitive level, very effectively with such rapid and frequent transitions. Perceptually, of course their attention is maintained. The question remains, however, whether they can cope in any meaningful way or remember anything at the more cognitive level. Salomon points out that perceptual attention and processing does not translate necessarily into any substantial or deep cognitive processing (Reference #4). Indeed, too much perceptual processing can impair deeper reflection which was one of the objectives of this series.

Detective Series Not Liked

The most vocal complaint about the series centered on the detective series, "Will and Way, P.I." Students criticized this segment in all groups, and with virtually no disagreement. "Old fashioned," "corny," "confusing," "weird," "strange," were some of the words used to describe it. "The Detective Series has nothing to do with the topic," was not an infrequent remark. With deeper probing, the impression given by students was that the series was not recognized as a spoof of any existing TV programs. The genre and style was not apparently familiar to the students, so it could not operate well as a spoof. Furthermore, there was no contextual or cognitive organizer by which the students could accommodate the content of the detective series. This lack of a contextual clue or "advance organizer" was a genuine difficulty for students, many of whom were confused or frustrated if their teacher had not prepared them well by introducing the point or message of particular segments.

Were the Programs Informative?

The majority of students felt that there was not nearly enough "information," "hard facts" or "real life" presented. There was nothing new according to many students. As reported earlier, it is doubtful that many students recalled much of the information presented on the commercials "The Drug Information Network" (see section 3.4.). It should be noted that in the quantitative study, about 20% only indicated that there was not enough information. The apparently stronger resistance in the qualitative group may simply be due to the more vocal and expressive response of that group of students, while the majority who did learn from the tapes did not make a point of verbalizing this.

4.4. OTHER FOCUS GROUP COMMENTS

Humor

In all four classrooms there was a great deal of laughter. The laughter was appropriate and clearly linked to the program producers' intentions. Comments after viewing indicated quite positive response and general appreciation of the humor. A few of the students felt that the humor was too childish. A few male students appeared to be offended by the use of humor in connection with drugs. A group of five black male students in the class in the area of Metro with high drug incidence were especially upset by this.

A couple of these boys sought out the researcher following the in-class discussion session in order to emphasize their feeling that "you don't joke about drugs. It's serious and can really hurt people." A few others at the three other schools also made similar comments. One teacher commented, "Some of the teachers don't like the idea of using humor. Drug abuse is a serious matter. But I think the tapes are great. Humor helps them."

Credibility and Drug Abuse Consequences

When asked how they would improve the programs, students in all classes spontaneously suggested, "Make them more real." Ideas included interviewing former users of drugs and presenting real life scenarios. There were many comments asking why the "real consequences" and "the real facts" of drug use and abuse were not highlighted in the video programs. Queried on this matter, virtually all students felt the programs did not point out the serious and tragic consequences of drug abuse, whether health consequences, difficulty that results at home and in families or that drug abuse can, as students put it, "wreck your life." On these issues, most students seemed rather well informed, and somewhat worried. Students suggested (although less so than the senior highschool students) interviews with drug users – "real life stories" – might be effective. Direct quotes from students: "People are dying and losing themselves." "They [the programs] are not serious enough to convince students about drugs."

Other comments

In one class students inquired why soft drinks were not introduced into the programs as a habit forming "drug" (since caffeine was included). These comments received near unanimous agreement from the other students. Everyone felt strongly that "Coke," "Pepsi" and the like are as addictive as coffee and smoking – and as expensive and unhealthy in their minds. Unfortunately this issue emerged in the last discussion group, so it could not be checked against student views in other classes.

Although students had indicated that grade 9 was a better grade in which to begin drug education, a lot of students felt the series would be excellent in grade 6 or 7. These students felt the series was a little immature for grade 8, while a number in the grade 8 viewing groups agreed with the student who said, "Most of these things I learned about last year (in grade 7)." It may be, however, that such students were simply trying to give the impression of their own maturity. Two grade 6 teachers at one school who viewed part of the series indicated that it was too mature for that grade level, and a grade 7 teacher wrote, "Students are not sophisticated enough for the sarcasm in the spoofs." The timing of the laughter during viewing sessions observed by the researcher did not confirm this view, however. The reception by the grade 9 boys physical education class confirms the overall impression from the viewing sessions that the series is suitable for the grade 7 and 8 level, and may well work with grade 9 students.

5. EVALUATION OF THE SERIES *CHEMICAL SOLUTIONS*

Because of the high degree of similarity between the results of the quantitative and qualitative evaluations, the results of both are reported in this chapter.

5.1. DESCRIPTION OF THE STUDENTS AND TEACHERS

The Teachers

Eleven teachers completed pre- and post-test questionnaires for the evaluation study of *Chemical Solutions*.

There was greater difficulty recruiting senior highschool teachers for this part of the study than intermediate teachers. As indicated, senior teachers had already dealt with substance abuse in their 1990-91 curriculum. Some school boards withheld permission to undertake the evaluation in their schools because of the strong reluctance of teachers and school board curriculum advisors to undertake a program requiring a least two weeks of classes. Drug education is primarily located at the senior high school level in the health curriculum. Health and physical education are companion subjects taught by one teacher as one subject area. Typically such teachers arrange their programs to maximize outdoor physical education classes in the April to June period.

Seven classes were ultimately recruited for the quantitative portion of the study, and four classes were recruited for the qualitative portion of the study. Eight of the teachers were physical education teachers, one a teacher of media studies, one a teacher of several subjects at a rural high school, and one an English teacher.

As with the intermediate teachers, they were unable to indicate any particular reason for wanting to use such a program other than that it would be helpful to supplement or reinforce other information they had presented on substance abuse.

Although three teachers said they did not know if drugs or drinking were a problem for their students, seven teachers indicated that drinking clearly was a problem and two felt drugs were a problem as well. Thus, nine senior teachers saw drinking or drug problems with their students while only six intermediate teachers had.

Although all teachers held discussions with students about issues raised in the programs, and although all had looked at the teacher's guide, no teachers made any effort to exploit any of the other classroom activities and exercises suggested in the guide. Lack of time was the unanimous reason. Introducing videotapes, viewing them, and discussing them took up considerable class time – easily a complete period leaving no time to introduce other activities.

The Students

Nearly half of the sample was male (47%) and 75% spoke English at home (n=142). The remaining participants came from 19 different linguistic groups, French and Chinese being the largest groups.

Attitude to drinking and drug abuse: 79% of students thought it "wrong" of others to say that taking drugs was either "smart" or "cool" (versus 90% of the intermediate students who thought it "wrong"). 18% did not know if it was "right" or "wrong" (versus only 10% of intermediate students.) 10% of students claimed to think "a lot" about drug use and abuse; 57% "a little bit"; and 33% "never" (n=131).

As for student perception of drug use in their local community, 26% thought it a problem while another 61% thought it "a bit of a problem" with 13% thinking drug use was "not at all" a problem. (These figures are very close to those for intermediate students.) As with the intermediate students there was no measurable relationship between perception of local community problems or drug abuse and student gender, home language or region in the province.

On the other hand, the more direct questions, "Do students drink? (a lot, sometimes, never)" and "Do students take drugs? (a lot, sometimes, never)," brought student reactions which varied according to student gender, whether English was the student's mother tongue, and according to the geographic location of the student. The results are interesting as clearly male students felt there was more drinking amongst other students than female students did, although male and female students' perceptions of drug use were the same. Those who spoke English as a second language thought drug taking was a greater problem, but drinking less of a problem, than those who spoke English in their home. Drinking was perceived to be more of a problem in the north than the south, while drug taking was perceived to be more of a problem in the south. See Table 12.

Table 12
Student Perception of Drinking and Drug Taking

Drinking

Students drink	A lot	Sometimes	A little/ Never	Don't Know
All students:	76%	17%	7%	
Male students:	81%	14%	6%	
Female students:	73%	18%	6%	3%
English spoken a home	81%	13%	4%	2%
E.S.L.*	70%	20%	10%	
South:	75%	16%	8%	
North:	80%	20%		

(n=99)

*E.S.L. : Students who speak English as a second language.

Drug Taking

Students take drugs	A lot	Sometimes	A little/Never
All students:	41%	35%	24%
English spoken a home	36%	36%	25%
E.S.L.*	45%	35%	20%
South:	43%	33%	22%
North:	35%	40%	25%

*E.S.L.: Students who speak English as a second language (n=99)

Senior students were somewhat different than intermediate students in answers given to the question: "Why do students take drugs?" "Peer pressure" as a term has entered their vocabulary to a much greater extent with 37 students using this exact phrase (versus only 4 intermediate students). Thirty-nine students indicated problems in the family, at school, with girl- or boyfriends, stress); and 27 (less than the 74 intermediate students) indicated "to be cool." Thirty-two gave "to fit into the crowd" as a reason, 29 "to feel good," "get high," "have fun," or "to get a buzz," 10 curiosity, and 8 "something to do."

5.2. OVERALL EFFECTIVENESS OF THE SERIES

Unlike the intermediate series *Dealing with Drugs*, *Chemical Solutions* consisted of six quite different programs. They were different because they were each different dramas with different characters, actors, and story lines covering different styles of dramatic presentation: suspense, mystery, science-fiction, social satire. Each, therefore, requires a separate evaluation if accuracy of assessment is to be gained. (See section 5.3. below.) It should also be noted that because of the open-ended and dramatic nature of these programs, they were more difficult generally for students and teachers to assess. While teacher and student response indicated a less enthusiastic and positive evaluation, this may partly be due to the inherent difficulty of assessing such dramas for their educational impact. *Dealing with Drugs* contains more apparent information and specific objectives than *Chemical Solutions*

The Teachers

These senior highschool teachers did not feel as strongly about the relevance of the series *Chemical Solutions* as their intermediate level colleagues felt about *Dealing with Drugs*. Again, this reflects teachers' attempts to evaluate the series as a whole. A few of the programs clearly were relevant, a few not. Only four teachers felt the series was relevant to local needs and problems, and five felt it was only "somewhat" relevant. Two teachers felt it was not relevant.

Impact on student attitudes: With respect to positive impact on students attitudes, seven teachers felt there had been "a little" effect, four teachers felt there was "no effect."

Effectiveness: Only two teachers felt the programs were effective, and three other teachers felt the programs were neither effective nor ineffective. Five teachers felt the programs were ineffective. One teacher felt unable to answer that particular question.
This moderately negative assessment of the series was also reflected in the teachers' evaluation of how well the programs generated discussion. Although two teachers thought the programs had generated discussion, and more substantial discussion than was usual, four teachers felt the programs had not generated more discussion than would have been the case without the programs. The other five teachers did not feel able to decide on this question one way or the other. Teachers wrote: "Some tapes actually 'turned kids off' and discouraged discussion." "Some programs were too juvenile for eighteen-year-olds." "[The programs took] too much time to get to an indirect message."

Teacher participation in the TVOntario workshops seemed not to affect teacher assessments (as it had amongst intermediate teachers). Positive and negative assessments were split between those who had participated and those who had not. Nor did teacher gender or subject taught have any relationship to teacher assessments; neither did region of the province, or city, town or rural location of the teacher's school.

Because of this more reserved response by the teachers to the series – and despite their volunteering to participate in the evaluation study – three of the teachers did not screen all six programs for their students. These three teachers reported (at the end of the evaluation period) having selected "the best" programs to show their students. The number of students responding to particular questions (n), thus varies in the results reported below. (It should be added that higher levels of absentee students were also common to the senior physical education classes compared to the intermediate classes.)

Teachers and students in the quantitative study and the qualitative study formed a very clear consensus as to the two best, most relevant and useful programs, (programs 2 "The Cliffs"; and 5 "Lucky You"). They also agreed in close to unanimous opinion that programs 4 "Perfect"; and, less so, 3 "Horses, Not Mules," were confusing and frustrating and not very relevant or instructive. Program 1 "Michele" was liked, although some aspects of it were not, as was program 6, "The Human Race." (See section 5.4. for more detailed comments on each program.)

The Students

There were several measures used to test how effective the series was from the point of view of student reaction. Based on their own perception, more than half the students felt they had learned at least a few things from the series. A more objective measure was the students' awareness of the names of illicit drugs. More than half the students listed names of drugs not mentioned in lists prior to watching the series.

More than half the students felt like talking after viewing, although most of these were moved to talk only "a little." (See Table 13.) Of interest, there was *no* positive relationship – indeed some slight, not significant, negative relationship – between students' desire to talk after the programs and the teachers' evaluation of such discussion.

Table 13
Effectiveness of *Chemical Solutions*
Based on Student Reactions and Response

	Nothing at all	A few things	A lot
Students felt they learned from the series	29%	57%	6%

	More than before series	No more than before
Students indicated awareness of illicit drugs	57%	42%

	A lot	Somewhat	A little	Not at all
Students felt like talking after viewing the series	2%	17%	39%	35%

(n=71)

While there was no relationship between student gender and learning or awareness after viewing the series, there was some relationship between student gender and the students' desire to talk. Female students were clearly more moved to talk than male students. The question that then occurs: Did the programs influence the girls more than the boys, or do girls generally feel more inclined to talk about these issues? Subsequent results seem to point to the fact that the series was more deeply appreciated by female students than males. Table 14 illustrates the gender relationship to the desire to talk about the issues raised by the series.

Table 14
Student Gender and Desire to Talk
about Drugs After Viewing *Chemical Solutions*

Students wanted to talk	A lot	Somewhat	A little	Not at all
Males	3%	14%	28%	47%
Females		21%	52%	21%

(n=71)

While most students felt their attitude to drug use was unchanged (62%) after viewing the series, fully 38% felt the series made them feel "more careful" about drug use. And, surely heartening to the producers of the series, 83% of student viewers after seeing the series appreciated the fact that drug abuse affects everyone in society, not just the individuals who abuse drugs. These figures are reported in Table 15.

Table 15
Series Effect on Student Attitudes

After viewing the series, students felt:

More careful about drugs	38%
No change in their attitude to drugs	62%
Less careful about drugs	1%
Drug abuse affects only the individual	3%
Drug abuse affects only those around the individual who is using drugs	7%
Drug abuse affects everyone in society	83%

(n=71)

After viewing the series, students were asked again "Why do some kids take drugs?" Despite the issues of self-esteem, physical abuse, loneliness, and competitive sports having been raised in the programs, no students referred to these issues as possible reasons. Indeed, all students gave answers virtually identical to those they had written on the pre-viewing questionnaire.

Finally, on a series of open-ended questions which asked students to explain in a few words the fundamental story line of the programs, it was clear that virtually no students failed to understand the basic point or narrative of the programs. While difficult to measure quantitatively, all students who answered these open-ended questions indicated adequate comprehension. This was not true, however, with regard to program 4, "Perfect," where nearly all students simply wrote that they had not understood anything at all about this story. This was interesting in that, as indicated below, there was some feeling that programs 3, "Horses, Not Mules" and 4 "Perfect," and to a lesser extent some aspects of program 5, "Lucky You" were a little confusing, and yet almost all students completed the open-ended question so as to indicate comprehension of story line. In discussion, the students said they were frustrated during the program although by the end they had understood.

5.3. EFFECTIVENESS OF EACH PROGRAM

As indicated above, this series is perhaps more adequately evaluated as each quite different program is examined separately.

Perhaps the two best measures of the series effectiveness, given the objective to generate discussion, were the two test items asking students, first, if the particular program had encouraged them to want to talk about drugs or drug abuse, and, second, were they moved to the point of wanting to help the individuals in the program who were facing difficult decisions or were in difficult dilemmas of one kind or another. Tables 16 and 17 present the results.

On the whole, the number of students stimulated to talk was not high for any of the programs. (See Table 16.) It is interesting to note that, although program 3 "Horses, Not Mules" was not liked nearly as much as program 5 "Lucky You" (see section 5.4) it did appear to encourage more students to want to talk about the issues raised in that program. This is an important positive endorsement of program 3 "Horses, Not Mules." It should also be added that the central issue in "Lucky You," physical and sexual abuse, is an issue about which many students may have reservations preventing them from talking openly.

Table 16
Stimulation of Discussion

Students felt they wanted to talk after program:	A lot	Somewhat	A little	Not at all	
1	2%	11%	22%	64%	(n=89)
2	1%	15%	32%	52%	(n=116)
3		11%	34%	55%	(n=83)
4	1%	8%	23%	67%	(n=99)
5	2%	9%	24%	65%	(n=100)
6	3%	19%	38%	40%	(n=77)

On the other hand, the second question which aimed to measure empathy on the part of student viewers, shows many students were moved by the programs, particularly female students. (See Tables 17 and 18.) It is interesting in this regard that program 1 "Michele" aroused this sense of empathy to a degree higher than for program 2 "The Cliffs" even though "The Cliffs" was far and away the best liked program. Doubtless, this was due to the fact that "The Cliffs" covered issues far more familiar or commonplace than the issues raised in "Michele."

Table 17
Generation of Empathy Among Student Viewers

Upon viewing programs students felt	They wanted to help the characters	They did not want to help
1	54%	56%
2	41%	59%
3	45%	53%
4	17%	83%
5	54%	45%
6	42%	58%

(n: as indicated for each program in Table 16)

The strongest factor influencing different responses to the programs appeared to be student gender. Table 18 indicates how female and male students reacted differently to each program.

Table 18
Gender Difference in Student Response to Each Program

Students wanted to help	First Program	Second Program	Third Program	Fourth Program	Fifth Program	Sixth Program
Males	42%	27%	41%	8%	35%	40%
Females	65%	52%	48%	28%	77%	44%

(n: as indicated for each program in Table 16)

5.4. STUDENT APPRECIATION OF THE SERIES AND PROGRAMS

Compared with the above measures of "effectiveness," students have a much more positive response to "enjoyment" of the series. Of the students who indicated their appreciation of the entire series (n=71), 61% of the students liked the series.

When asked if they would watch *Chemical Solutions* on TV at home, although 17% said "never," 75% indicated they would watch such a program on TV "sometimes."

While most students enjoyed the programs, female students enjoyed the programs with considerably more enthusiasm than male students. And students who speak English as a second language did not enjoy the programs as much as those with English as their home language, no doubt because the dramas relied considerably on dialogue in their development. Table 19 reports.

Table 19
Gender and Language Differences in Students' Appreciation of *Chemical Solutions*

Students:	Liked the series	Did not	No Answer
Males	56%	36%	8%
Females	67%	27%	6%
E.S.L.*	50%	45%	5%
English at home	64%	28%	8%

(n=69)

*E.S.L.: students with English as a second language.

There was no other measurable relationship, to such factors as region of school, student attitudes to drugs as a local problem, or teacher's participation in the workshops.

This generally positive reaction to the series was reflected in some other ways. While on the whole students indicated the programs generally were neither too long nor too short, neither particularly boring nor particularly interesting, neither too fast nor too slow, a majority of students clearly felt the programs were more believable than unbelievable, not confusing but clear, and easy to watch rather than hard to watch. See Table 20.

Table 20
Student Appreciation of the Series *Chemical Solutions*

On a scale of:	1	2	3	4	5	
Hard to believe>	3%	9%	46%	19%	16%	<Believable
Confusing>	3%	10%	35%	22%	23%	<Not confusing
Hard to watch>	2%	16%	39%	10%	27%	<Easy to watch

These student evaluations of the programs were not related to region of school, home language of the student, student gender, or prior attitudes to drugs.

Enjoyment of Particular Programs

It is, however, most instructive to examine how each particular program was liked or appreciated by students. Table 21 reports these results.

Table 21
Student Enjoyment of Each Program in the Series *Chemical Solutions*

Program & Title	Criterion	Yes	Somewhat	No	
1) Michele	Overall	11%	55%	34%	(n=88)
	Male	2%	55%	43%	
	Female	20%	54%	26%	
2) The Cliffs	Overall	20%	64%	16%	(n=116)
	Male	20%	64%	16%	
	Female	20%	69%	11%	
3) Horses Not Mules	Overall	8%	50%	39%	(n=84)
	Male	5%	49%	44%	
	Female	12%	51%	35%	
4) Perfect	Overall	6%	25%	69%	(n=98)
	Male	5%	21%	69%	
	Female	2%	31%	67%	
5) Lucky You	Overall	12%	55%	31%	(n=100)
	Male	6%	55%	39%	
	Female	19%	58%	21%	
6) The Human Race	Overall	18%	49%	32%	(n=75)
	Male	29%	49%	22%	
	Female	6%	50%	44%	

It is noteworthy that programs 1, 3, and 5 ("Michele," "Horses, Not Mules" and "Lucky You") in which female characters predominated were more liked by female students because they identified with them. Program 2 "The Cliffs" in which male characters dominated – and which was the most liked of all programs – was appreciated by male and female students to the same degree.

These student evaluations of the programs in Table 21 were made immediately after viewing the programs. Program 2 "The Cliffs" was clearly the most liked, and programs 6, 5, and 1, "The Human Race," "Lucky You" and "Michele" were enjoyed equally by students. Program 3 "Horses, Not Mules" did not receive high ratings, and program 4 "Perfect" was poorly received by students.

At the end of viewing the entire series, students were asked to evaluate their appreciation of the programs by choosing one or two programs which they most liked (Table 22). The overall rating of the programs was similar, although students felt they enjoyed programs 5 and 6 somewhat more than program 1. This may be due to the fact that the latter programs were fresher in the minds of students.

Table 22
Students' Favorite Programs

Program	Title	% of students
1	Michele	20%
2	The Cliffs	49%
3	Horses, Not Mules	13%
4	Perfect	8%
5	Lucky You	37%
6	The Human Race	38% (n = 71)

Total % > 100% as students could pick one or two "favorite" programs

It should be emphasized how much male students enjoyed "The Human Race" since this program also received some of the most articulate criticism (a factor that may indicate students interest had, at least, been aroused). The criticism may have been due to the widespread knowledge among high school students about the issue of steroid abuse in the Ben Johnson case. Students were either tired of the story, or else they felt they had an opinion (including an opinion about the accuracy or relevance of program 6). Furthermore, students are more familiar with feature movies with a great deal of futuristic, high tech material. They not only like this genre, they are also more apt to be critical of any shortcomings since they are so familiar with it.

Similar student judgments are recorded with respect to how effective each program was in encouraging students to talk about the issues raised by each program. Table 23 reports the percentage of students who selected particular programs as the one or two most effective programs in generating discussion. Where student gender makes a difference this is noted (programs 4 and 5 only, "Perfect" and "Lucky You.")

Table 23
Students Assessment of Programs Capacity to Generate Discussion

Program	Title	% of students
1	Michele	21%
2	The Cliffs	42%
3	Horses, Not Mules	17%
4	Perfect	23% 31% of male students 15% of female students
5	Lucky You	31% 11% of male students 52% of female students
6	The Human Race	41%

Other than the two programs where student gender made some difference in student assessments, no other factor was measured as influential (language background, region of province, age, grade level, teacher's participation in workshop, teacher's assessment of effectiveness).

Student assessments of other features of the six programs followed predictable patterns given the above reactions of students. (see Table 24). Again, student gender surfaced as the only measurable influence on student reaction (for programs 1 and 6). Apart from very slight differences in reactions to program 2 "The Cliffs" due to language background of the students (the program was slightly more interesting to English speaking students) and to region of province of student (northern students found it slightly more interesting), language background and region of province were otherwise not significant to student reactions. Student attitudes to drugs as a local problem, teacher evaluations of program effectiveness, and teacher participation in workshops, were not significant influences.

Table 24
Student Reactions to Program Features
Male/Female Differences Reported Where Significant

Program	Boring>	1	2	3	4	5	<Interesting
1: Michele	All	13%	32%	28%	22%	5%	(n=89)
	Male	16%	37%	23%	19%	5%	
	Female	10%	26%	33%	26%	5%	
2: Cliffs	All	5%	12%	31%	31%	20%	(n=116)
3: Horses	All	20%	21%	32%	19%	8%	(n=83)
4: Perfect	All	41%	22%	28%	1%	6%	(n=96)
5: Lucky	All	13%	23%	36%	15%	13%	(n=96)
6: Human Race	All	14%	14%	32%	25%	16%	(n=73)
	Male	10%	13%	25%	28%	25%	
	Female	18%	15%	40%	21%	6%	

In the interpretation of these gender differences it should be kept in mind that males may tend to have more negative judgements, and more confidence that they have understood even when they have not (hence, less tendency to rate a program confusing).

Table 25
Confusing/Not Confusing Scale

Program	Confusing >	1	2	3	4	5	<Not Confusing
1: Michele	All	1%	3%	19%	22%	54%	(n=89)
	Male	0%	2%	19%	19%	57%	
	Female	2%	5%	18%	25%	50%	
2: The Cliffs	All	2%	1%	17%	16%	64%	(n=116)
	Male	2%	1%	17%	19%	60%	
	Female	2%	0%	17%	13%	68%	
3: Horses	All	13%	19%	24%	15%	29%	(n=83)
	Male	5%	18%	33%	15%	28%	
	Female	21%	21%	16%	12%	30%	
4: Perfect	All	16%	24%	25%	10%	23%	(n=96)
	Males	23%	20%	19%	15%	23%	
	Females	9%	24%	30%	6%	24%	
5: Lucky You	All	2%	13%	29%	25%	31%	(n=96)
6: Human Race	All	14%	24%	32%	14%	14%	(n=73)

Programs 1 and 2 were felt by most students to be clear and not confusing. Only 4% of students thought program 1 was at all confusing, only 3% of students felt program 2 was at all confusing.

As for pace or rhythm of the programs, more than 65% of students felt the programs were neither too fast nor too slow with the rest of students split between those who thought the programs somewhat too fast and those who thought the programs somewhat too slow. Only for program 4 "Perfect" did students feel it too slow with 40% of students making that judgement and only 10% thinking it too fast. (It had also been judged to be the most "boring" of all the programs.)

Characters

One final and important feature of programs on which students expressed their opinion related to how closely the characters in the programs resembled people that the students knew in real life. In other words, how realistic, credible or believable were the characters depicted in the programs? This is reported in Table 26 with male/female figures listed for those programs where there was a meaningful difference. Here again "The Cliffs" was felt to have the most credible characters.

Table 26
Student Assessment of Character Credibility

Program	Title	Gender	% Believing characters to be realistic
1	Michele	All	51
		Males	56
		Females	47
2	The Cliffs	All	79
		Males	84
		Females	75
3	Horses, Not Mules	All	16
4	Perfect	All	19
		Males	8
		Females	33
5	Lucky You	All	43
		Males	36
		Females	49
6	The Human Race	All	13
		Males	17
		Females	6

It is interesting that male students were more likely to think the characters in program 1 are credible or realistic even though the characters are predominantly females. It is also interesting to note that, while male students are more likely to want to talk about program 4, female students feel the characters are more realistic by a substantial margin over male students. That may have been due to the fact that female characters dominate in program 4.

Length

Although on the multiple choice question, virtually all students felt the length of the programs was fine, many students indicated in open-ended questions that a given program should have been longer. These suggestions about increased length were related particularly to the endings of the programs. The qualitative discussion sessions confirmed the fact that many students had wanted to see greater resolution at the end of each drama. There were no comments suggesting a program should have been shorter.

5.5. PARTICULAR COMMENTS ABOUT THE PROGRAMS

Comments about each particular program from both the quantitative and qualitative studies fill out the profile of response and reaction to the six programs. As with the several measures of student response detailed above, "Lucky You" and "The Cliffs" consistently received the most positive written and spoken comments from students and teachers.

Program 1: Michele

Program 1: Michele

The first program was enjoyed by many students, on the whole more than programs 3 and 4, but not as much as programs 2 and 5. Many students felt the drama would be enjoyed – and be more effective – by a younger age group. One of its engaging features for female students was the girl-to-girl friendship of Jessie and Michele. The intensity of interest in that element of the drama (observed as well in the "Lucky You" program) was rather stronger than anticipated. Whether this is because of the lack of credible portrayals of girl-to-girl friendships on TV and in the movies (and that may be the case), it is, of course, difficult to say with any certainty.

"Michele" was felt to be a somewhat unrealistic drama. The story line was not probable. The weakest feature was the lack of credibility in Jessie's character. On the quantitative questionnaire, these comments were not explained in any detail. During the qualitative discussions, students reported that if Jessie was able to hold a job and go to school, she had to be reasonably competent. However, she showed complete naïvety and gullibility in trusting Michele so quickly. Students felt this was hard to believe.

The locale at the beginning was confusing to the point of distraction. Students and teachers were unsettled by the "odd" look of the place where the party was occurring. (Was it a bar? Someone's place? A roof? A warehouse?) Some students thought it was a "cheap" set. Almost everyone felt it took away from initial engagement with the drama.

A number of students, and one teacher, felt that the music at the beginning of "Michele" was too loud. And a number thought the program moved too slowly.

Program 2: The Cliffs

This program was clearly the most appreciated program of all six. It was the most relevant since alchohol was at the centre of the story. It appeared to be judged the most realistic. A further significant feature which set "The Cliffs" well ahead of the other programs was that it portrayed boy-girl relationships, while the other programs were dominated primarily by girl-girl relationships. Female students appeared to like it as much as male students, although many female students did, in fact, prefer "Lucky You." Both teachers and students felt the program was engaging and appealing. It provided an excellent, and very relevant point of departure for discussions. A number of students wanted to discuss what happened afterwards.

Program 3: Horses, Not Mules

Surprisingly many students did not understand the story line very well. A good many students were not sure what the mother was doing. They were not sure who the two men in the van were. Some thought they might be criminals, others did not know. It was not clear that they were police. Added to this confusion was the fact that most students felt the pace of this program was far too slow, much slower than other programs (except for "Perfect," program 4). The lighting and decor was faded, or "depressing," and although such lighting and decor is realistic for a single parent apartment, this inclined many students to "tune out."

Program 4: Perfect

The point of this program was lost on nearly every student – and teachers too. Although the teacher's guide explains the point of the program well enough, it simply did not seem to engage students or teachers. Some who did understand the program thought it was one interesting idea carried to an extreme over a fairly long duration (15 minutes), and at a rather slow pace.

Students were very frank in their dismissal of this program. "Far fetched." "I have no clue at all about this program." "Don't show this." Many other, very negative comments were expressed in all groups. Even teachers had a difficult time with this program. They felt it too slow moving, too "round about" in the way it was trying to make a point. On the open-ended questions about the program, "Perfect" was singled out by 25 students as a program they "didn't like at all."

Because of teacher and student expectations of "learning something," "of getting to the point" – time spent to reflect over a significant period only seems to frustrate students and teachers alike. Teachers appear unwilling to give up class time to try to use a program they feel requires so much clarification and introductory set up. They appear to want programs that get to the point quickly and clearly. This "Perfect" did not do to their satisfaction.

Program 5: Lucky You

Students became quite engaged in the drama of program 5. It was clearly one of the two favorites, perhaps slightly more favored by female students than males. It provided an excellent introduction to a rather sensitive and challenging classroom discussion topic, abuse at home.

There were more than a few comments about the lack of clarity and emphasis in the program regarding the physical/sexual abuse and its relationship to Leslie's drug abuse problem. Many felt this development was underplayed, and not brought out quickly enough to allow students to get involved in the thematic movement of the program. Some students felt that not enough detail had been given to establish Leslie's problem. A few others felt that since a case of physical and sexual abuse was being portrayed, students should have been helped to understand what they could do about such a problem. Perhaps her friend should have spoken to her own mother. Perhaps she should have talked directly to Leslie.

It was interesting to notice, too, how distracted students became in the last few minutes of the program when the music (an excellent piece in its own right) was completely out of rhythm with the dancing. This was commented on by students once the program had ended. Students are, as one might suppose, very sensitive to such things.

Program 6: The Human Race

The reception of program 6 was mixed, and not entirely easy to generalize. On the one hand, it was one of the two favorites of 38% of the students. On the other hand, in qualitative viewing sessions, it was strongly criticized, and on the quantitative questionnaires, it was also criticized, although not as much as program 4.

Students and teachers in both the quantitative and qualitative evaluation groups were quite critical of the "high tech jargon." Some other comments were: "too far into the future," "less confusing terminology, please," "realistic terms, I didn't understand all that talk," "make it pertain more to the present so we can relate," "overkill," and "am I supposed to be able to understand all that stuff?." The use of a lot of scientific-sounding words to describe the physiology of the athlete confused students, many of whom may have thought they were supposed to understand each and every term. The use of technical jargon may work in feature movies and pulp science-fiction; however, usually a few terms are used with a lot of repetition. In "The Human Race" many terms are used only once.

Perhaps of greater significance, however, is that students in school want to understand the words. They feel that it is required in those viewing circumstances. They were not prepared merely to have an impression of the words for entertainment's sake. Hence, there was great frustration when the "high tech lingo" was used. Also, a good many students did not understand the locale, the setting, or the situation of this drama. Fifteen minutes may be too short a period to establish a screen environment. There were too many close-ups, and no simple establishing shots.

Another quite unexpected response to program 6 was the number of students and teachers in both the quantitative and qualitative survey groups who indicated that they had been upset by the human heart exploding through the chest of one of the athletes. The context, the lack of such physical violence earlier, and the unbelievability of such an occurrence (even though the program was very much a fantasy) seemed to work together to cause undue upset to the point of discomfort and distraction from the story line.

5.6. FURTHER COMMENTS FROM THE QUALITATIVE SESSIONS

High Levels of Attention

As with the intermediate series, students in the senior high school grades paid attention to all *Chemical Solutions* programs. Both researcher and teachers noted that attention levels were higher than for many other video programs viewed in class. There was an unusual level of quiet, with virtually no students gazing around, putting their heads down, or attempting to talk with other students. There was clear and steady interest in each of the six dramas.

Length

Fifteen minutes seems to be an excellent length of program for classroom use.

Dialogue

The dialogue of the programs seemed generally clear, credible and comprehensible (apart from passages in "The Human Race" as mentioned below). On the other hand, the dramas relied overly on dialogue, rather than action, setting, or other story cues. That may have been the reason that second-language English students were somewhat less responsive and appreciative of the programs (they had a little more difficulty following the stories).

Female Friendship

Although difficult to measure, the researcher was struck in the qualitative sessions by the engagement of many female students with the strong girl-to-girl friendships portrayed in programs 1, "Michele," and, 5, "Lucky You."

Comments on Some Weaknesses in the Series by Teachers

Teachers, especially physical education/health teachers, at the senior grade levels have tremendous curriculum pressures. Although drug education is indeed a unit that teachers aim to cover in the health curriculum, there seemed to be two major liabilities of the series *Chemical Solutions*.

First, it is a long series in terms of the curriculum time available. Six programs, especially if any of the activities from the teacher's guide are included, makes for a two- to four-week unit. This may well be longer than a teacher and class can accommodate as the teacher typically will have other materials as well that he or she wishes to handle in this unit.

Second, the programs are related as much or more to issues of peer relationships, parent/youth relationship, physical abuse, friendship, and competitive sports as they are to drug education specifically. This, of course, is a strength of the series. On the other hand, teachers require specific objectives by which they can focus educational resources. If the objectives are many and varied – as with the series *Chemical Solutions* – then teachers have trouble incorporating it into their classes. They lack time to screen all video resources. If they cannot quickly determine the precise objective in the curriculum that a tool meets, then they will likely be inclined to simply overlook the series as a classroom resource.

A further comment from teachers, confirmed by the reactions of the students, is that drinking is far and away the most evident drug use and abuse problem facing senior level students. However, there are other materials on alcohol. Teachers pointed out how useful they have found two videos in particular: "The Party's Over" (a video on impaired driving produced by Alberta's Solicitor General) and "Open Flame" (a video produced by the Canadian Association of Chiefs of Police, 1989)

Comments on some Weaknesses in the Series by Students

A consistent and universal comment centered on the lack of really tragic consequences of substance abuse, and the lack of genuine "punch" when there were apparently unhappy consequences (Jessie's loss of money and sense of abandonment at the bus terminal in "Michele"; the runner's loss of life in "The Human Race"). "It was off the mark because it didn't show what really happens" and "they don't show that people are dying and losing themselves" were a couple of other comments.

The students felt generally that the dramas did not "make any point" quickly or emphatically. The students were left "hanging" watching what they sensed to be slow-moving and sometimes confusing dramas (programs 1,3, and 4 especially), unable to realize any implications or message of the drama until near the end. Not showing consequences took away from the usefulness of the video programs in the minds of both students and teachers.

Several students felt that discussion would have been as effectively generated if the teacher had simply and briefly presented a question, a case study, or a topic, rather than spend 15 minutes playing a videotape.

The dramas tended to extend or multiply the number of issues and considerations that could subsequently be discussed, rather than developing focus on one or two issues. Although an objective to link substance abuse to other personal and societal issues is, in itself, worthwhile, there are two difficulties for teachers and students: (1) The discussion can quickly become so diffused as to be altogether too vague or confusing for many students. (2) The teacher is less inclined to want to use the videotape as it does not fit readily into a curriculum with specific or narrow objectives.

6. CONCLUSIONS AND RECOMMENDATIONS

The two series *Dealing with Drugs* and *Chemical Solutions* provide helpful additions to the resources available for drug education for students in grades 7 to 12 in Ontario schools. The duration of each program is ideal for classroom use. The two series represent a relatively new and unique approach to drug education, which, on the whole, will be appreciated by teachers and students. With the teacher's guides, well praised by teachers, the video programs clearly give easy-to-use tools to teachers in their drug education programs.

Dealing with Drugs

The very novel approach used in *Dealing with Drugs* worked well with both students and teachers who expressed high praise for the length, the format, and the engaging nature of the different TV spoofs. The series is very useful, not only for grade 7 and 8 students but quite possibly for some mature grade 6 classes and some grade 9 classes. If adequately introduced to teachers, most would want to use the series, and would be happy with classroom results. They may well want to use each program several times with the same class, perhaps showing particular segments only. Information on drugs and drug abuse, on friendship, peer pressure, and self-esteem provides several important intermediate level curriculum objectives. Language arts classes and media literacy classes could also exploit this series.

The soap opera segment proved to be highly engaging – even when students may have groaned and displayed some signs of disinterest (it may have been a way of responding to the evident spoof of daytime soap operas that the lead-in to the drama effectively provided). Students very quickly became caught up in the story. Although students notice the evident difference in variety of locations, lighting, and other production features related to cost, as compared to extremely expensive, large market, large network dramas like *Degrassi High*, they appear to get around those differences in production values and become involved in the story. Stories of interpersonal relationships among adolescents of comparable age appear to hold very high levels of attention, indeed.

On the whole, the format of *Dealing with Drugs* was well received by teachers and students. Such a format could be usefully developed for other series on other objectives. However, it may be wise to rethink the rapidity of transitions from segment to segment. Further, it may be neither necessary nor helpful to students to have so many segments in each 15-minute program. Student expectations at school and in the classroom are not the same as when they watch TV for home entertainment purposes. These expectations alter the level and kind of attention brought to a program. If the viewers feel they are expected to come away from a program with particular information that they may be called upon to discuss later, rapid editing and transitions may produce frustration. Under different viewing conditions and with different expectations, such frustration would not occur. Hence, a degree of caution should be exercised when using entertainment formats within the school and classroom setting.

There was some indication in the evaluation that the presentation of information requires careful planning. "One-shot" news delivery or commercial-like delivery of information containing unusual vocabulary or unusual relationships are not, in all likelihood, that successful.

In the *Dealing with Drugs* evaluation, there were a number of instances where teacher reactions and assessments were not related to the assessments of their own students. There is a challenge, therefore, in promoting the videotapes as teachers serve as the "gatekeepers" through whom curriculum resources get used in the classroom. There is good evidence *Dealing with Drugs* will be effective whether teachers at first think so or not. Promotion of the videos appeared to be especially successful among teachers participating in the workshops.

Finally, in addition to the suggestion that interviews with "real" drug users talking about the tragic consequences of drug abuse would be effective, a number of students suggested emphatically that having teens talking to teens would be a good idea. Teachers agreed with this student suggestion that videotaped discussions about drugs would help initiate and stimulate follow-up discussions among students in the viewing class. This idea could be kept in mind for future drug education materials.

Recommendations:

For Promotion:

1. This series should be well promoted as it is clearly useful, desired, and effective.

2. Continue as vigorous a program of TVOntario workshops for teachers as resources will allow as these clearly helped teachers acquire confidence and enthusiasm for the series.

3. The full range of issues covered in the program series should be highlighted in catalogues and promotional brochures sent to school boards and schools. Drug information, drug use, drug abuse, friendship, peer pressure, and media literacy are some issues that should be highlighted.

4. The full range of curriculum areas in which the program can be integrated should be indicated: health and guidance, English or language arts, media literacy, and science (social implications).

5. This series should also be promoted among grade 9 teachers as it would probably work well at that level. Grade 9 consistently emerged in discussions as a critical grade level for drug education.

For Format:

6. Continue to explore the magazine format in moderation by exploiting entertainment and home television formats, but with a somewhat slower pace in order to cut down on frustration levels. School viewing conditions, context and expectations produce different viewers than at home. While the frequent transitions in *Dealing with Drugs* contributed to high attention levels, a number of the segments were engaging enough that they could have remained on screen longer. Perhaps half as many transitions might have worked just as well.

7. The use of television commercial styles and news delivery to convey information should be carefully rethought. Commercials rely on "point-of-purchase" placement of products, extensive reinforcement in the environment and very short, usually concrete, items of information. News relies on day-to-day continuing stories. Research appears to indicate – even under those advantageous circumstances – that information is not very thoroughly and successfully conveyed. Thus, this format is probably less than ideal as a way of conveying specific information.

8. The soap opera format for a drama proved to be highly successful when the characters and story line were close to the student viewers. This format should be exploited, and competition with very costly productions (in terms particularly of lighting, location, and talent costs) ought not to overly concern producers if the characters and story lines are relevant.

9. Explore the production possibility of interviews with those who wish to talk openly about their drug abuse experiences and the effect on their lives, their friends, and families.

10. Explore the production possibilities of videotaping teen-to-teen discussions about drug abuse.

Chemical Solutions

On the whole less successful than *Dealing with Drugs*, *Chemical Solutions* nonetheless provides a helpful set of dramas through which senior level highschool teachers can engage their students' attention on issues not only of drug abuse but related and significant questions, including the nature of friendship and adolescent-parent relationships, physical abuse, self-esteem, and the competitive ethic in sport.

This series had a very mixed reception. There was clearly a great range of response to some of the programs: a few of them were received very well while two others were thought to be rather weak. It may well be that the target audience (grades 11 and 12) is too mature. One teacher in Scarborough showed programs to her grade 10 girls physical education class. She did not feel it was too mature. In the evaluation classes, there seemed general agreement that the programs would be better if shown in grade 9 or 10 for two reasons. Not only did students and teachers feel those were grade levels more at risk in terms of decisions students had to make about drugs but the programs themselves would be understood by those grade levels.

Strengths and weaknesses of dramas are not easy to evaluate. Since highschool youth see so much TV and film drama produced with large budgets, it is difficult to avoid unfavorable comparisons with these more expensive productions. This might explain some less than enthusiastic response to programs, story lines and characterization which are more suitable and closer to meeting educational objectives than evaluations suggest. Thus, the less than wholehearted response to *Chemical Solutions* must be cautiously interpreted.

Students did appear frustrated with the necessarily indirect and open-ended way in which the dramas moved toward setting up a final question or two at the end of the drama, often without giving any sure answer or closure to the drama. Students seem to be trained to anticipate direct treatment of curricula objectives and content, or at least more expository material than the open-ended dramas of *Chemical Solutions*. Teachers seem to expect this as well. Furthermore, the more typical TV and movie viewing of students involve dramas with highly resolved endings. Encountering dramatic presentations with quite unresolved endings was unsettling.

An additional problem was the difficulty teachers had in handling the wide range of objectives in this series. In the intermediate series, *Dealing with Drugs*, specific objectives (drug information, peer relationships, etc.) could be tagged to specific segments. In dramas, this rather large range of issues all came to the fore as an integrated set of issues. This is both helpful and difficult. As important as everyone thinks an integrated curriculum is, teachers expressed great difficulty in actually exploiting a series with such a wide range of objectives. Where does it best "fit into" the curriculum? This presents a difficulty in promotion and distribution of the series. If school board curriculum advisors, board audio-visual librarians, and head teachers cannot easily and quickly identify the series as meeting this specific curriculum objective, then their time demands will not allow any further reflection that might recognize the virtues and merits of a series that integrates a large set of objectives.

Any difficulty materials display in arriving quickly and clearly at "the point" or "the message" (as both students and teachers put it) will result in programs being left on the shelf. Time constraints do not allow teachers to search out the message and the usefulness of curriculum aids that are more reflective and less direct as these dramas clearly are.

Recommendations

1. The nature of these programs – as open-ended, reflective, almost "unfinished" dramas – requires emphasis. It may be useful to have a host *on-tape* at the beginning explain something of the nature of the program and its objectives. Teachers can and will typically emphasize more content and specific kinds of objectives. An on-tape host would help restructure expectations – of both students and teacher. Workshop training of teachers would also want to emphasize this point.

2. Review the target grades. Grade 9 and 10 teachers may be able to use this series successfully. It may be that teachers will have to, then, use more effectively the teacher's guides, but this is also more likely to happen at the grade 9 level than the grade 12 level. Drug education – from reports of all teachers interviewed – is a greater concern in the grade 9 curriculum than grade 11 or 12 where other issues are crowding an already crowded curriculum.

3. Make clear in promoting this series that friendship and coping with loneliness are dominant issues in a few programs. Teachers appear to be very much aware of this as an important issue in the high schools and would appreciate relevant materials.

4. Because of the problem teachers and school board curriculum advisors appear to have with material with many different objectives, it may be helpful in promoting the series to identify clearly, for each particular program, the single most important issue raised. It may not necessarily be drug abuse. The series – or the particular program – might then be used in other educational units than the Drug Education Unit. Below is a list of such possible objectives for each program that highlight what the qualitative study seemed to reveal as the most engaging elements in the programs for teachers or students. More careful thought and consultation with curriculum advisors about the relevant educational units in the senior level curriculum would likely serve to develop a more appropriate and effective list than the following one.

"Michele," Program 1: A program about girl-to-girl friendship and trust (betrayed).

"The Cliffs," Program 2: A program about father and son and questions of obedience, trust, and responsibilities to each other.

"Horses, Not Mules," Program 3: A program about a mother and daughter's relationship in a situation of intense stress.

"Perfect," Program 4: A program about how habits and pre-occupations of individual family members can lead to no family life at all.

"Lucky You," Program 5: A program about sexual abuse and friendship.

"The Human Race," Program 6: A program about professional, commercialized sport.

REFERENCES

1) Atkin, Charles K. "Effects of Televised Alcohol Messages on Teenage Drinking Patterns" in Journal of Adolescent Health Care, 1990:11:10-24.

2) Filson, Gerald W. "News Programming for Youth in Schools," TVO Report No. 13-1990-1991.

3) Resnick, Michael D. "Study Group Report on the Impact of Televised Drinking and Alcohol Advertising on Youth" in Journal of Adolescent Health Care 1990: 11:25-30.

4) Salomon, Gavriel. Interaction of Media Cognition and Learning. San Francisco: Jossey-Bass, 1979.